The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 773.—Vol. XX.] LONDON, SATURDAY, JUNE 15, 1850. [Price 6d.

MOLD RAILWAY.

TO RAILWAY CONTRACTORS, MINE and COLLIERY PROPRIETORS, BUILDERS, BRICKMAKERS, GENERAL STORE DEALERS, and OTHERS.

Most EXTENSIVE and IMPORTANT SALE of the whole of the RAILWAY PLANT and MATERIALS, the property of Messrs. Peto and Betts, who have completed their contract on the Chester and Mold Railway.

MESSRS. CHURTON have the honour to announce that they have been instructed to SELL, BY AUCTION, on Tuesday, Wednesday, Thursday, and Friday, the 25th, 26th, 27th, and 28th days of June, 1850, commencing each day at Eleven for Twelve o'clock to a minute, at the Saltney, Broughton, Garreg Lwyd, and Chester Yards of the before-mentioned contractors, the whole stock of

MATERIALS AND UTENSILS,

Consisting of railway contractors' plant of all kinds, railway waggons, of wood and iron, railway waggon wheels and axles, railway and platelayers' trolleys, rail straightening machines, railway flat-bottomed metals, 45 lbs. per yard, wrought spikes for temporary and permanent rails, cast chairs, sleepers, pile engines, crabs, monkeys, chains, ropes, sheaves, blocks, pulleys, sheerlegs, poles, planks, centerings, round and square timber, seasoned planks in oak, ash, elm, &c., well-seasoned barrow sides and legs, felloes, spokes, naves, wheelwrights' tools, &c., carts, waggons, vans and barrows of every description, two large break trolleys, horses' harness, chaffcutters, bean mills and stable utensils of all kinds, smiths' tools, anvils, bellows, vices, screw tackle, backs and tube irons, troughs, tongs, swages, mandrils, &c., fire grates, useful bolts, glands, hoops, &c., for waggons, a large quantity of iron and steel of all sizes, wrought and scrap cast-iron, lead piping, iron pipes, iron, lead, and wood pumps, double action air and forcing pumps, two Kyanising tanks and all apparatus complete.

Horse-powers, with various wheels, pinions, shafting, cog-wheels, rollers, &c., large cast cheeks and machinery of various kinds.

LOCOMOTIVE ENGINE and TENDER, in good working order.

Platelayers' tools, levers, bars, beaters, hammers, trolleys, &c.

Brickmakers' tools, tables, &c., quarry bars, picks, wedges, &c., masons' tools, setting tackle, &c., excavators' picks, tools, bars, shovels, &c.

Nearly every description of wrought and cut nails, locks, latches, &c., window glass and lead, windows, street lamps, oil, grease, turpentine, lathwood, joiners' benches, wrought-iron girder plates, slates, bricks, water tanks, two break trucks.

TWO HUNDRED TONS of PENMAEN MAWR STONE, broken ready for the road, and an endless variety of other effects.

Purchasers will have every facility afforded them in loading or shifting their purchases—the removal of which can be effected very readily, either by railway or water, as the yards are so situate as to admit of either of these modes of transit, thereby offering excellent opportunity to persons residing at a distance.

N.B.—The whole may be viewed at any time prior to the sale, upon application to Mr. William King, Broughton.

Descriptive catalogues will be ready for distribution eight days previous to the sale, and may be had at Messrs. Churton's offices, Chester; at any of the stations on the Chester and Mold, or Chester and Holyhead Railway; at the *Mercury* Office, Liverpool; *Guardian* Office, Manchester; *Midland Counties Herald* Office, Birmingham; Swan Hotel, Wolverhampton; and at the principal inns in the immediate neighbourhood.

MONMOUTHSHIRE.

VALUABLE FREEHOLD ESTATE.—MINERAL PROPERTY, with the COLLIERY and FIRE-BRICK WORKS, and all the VALUABLE PLANT, &c.

MESSRS. FAREBROTHER, CLARK, & LYE will SELL at Garraway's, on Thursday, June 27, at Twelve, by order of the Devisees in Trust, of the late J. F. Hanson, Esq., a very valuable MINERAL PROPERTY, situate in the Parishes of HEULLIS and LLANTARNAM, five miles from the town and port of Newport, with communication by the Monmouth Canal, on which there is a wharf attached to the works.

The estate comprises 376 acres, and contains COAL OF EXCELLENT QUALITY, and ironstone running under the whole extent with limestone, building and paving stone, excellent manager's house, and 17 cottages; also suitable farm buildings. The minerals have been partially opened and proved, and the brick works are of sufficient extent to manufacture 200,000 fire-bricks per month, besides draining tiles. All the coal and iron measures known in this part of South Wales between the Pennant rock and the carboniferous limestone crop out on the estate.

The VALUABLE MACHINERY now used on the works will be included in the purchase. The surface rental, including cottages, is about £200 per annum. The estate is freehold, except 28 acres copyhold at a fine certain, and 87 acres leasehold for 99 years, at a rent of £13 per annum. A railway of two miles in extent, worked by self-acting inclines, has been made through the centre of the property, by which the produce of it is conveyed to the canal.

Full descriptive particulars may be had one month prior to the sale, at the works; the Cardiff Arms, Cardiff; King's Head, Newport; White Lion, Bristol; of Mr. C. F. Phillips, solicitor, 44, Lincoln's-inn-fields; of Mr. J. T. Church, solicitor, 9, Bedford-row; at Garraway's; and at Messrs. Farebrother, Clark, and Lye's offices, 6, Lancaster-place, Strand, where plans may be seen.

GLAMORGANSHIRE.

MR. ROBERT EVANS will SELL, BY AUCTION, at the Bridgewater Arms, NEWBRIDGE, on Saturday, June 29th, 1850, between the hours of Two and Three o'clock in the afternoon, subject to conditions of sale to be there produced, all that very valuable FREEHOLD FARM and LANDS, called IRW YCHA, situate in the Rhondda Valley, in the parish of Llantrissent, in the county of Glamorgan, containing by estimation 71 acres 1 rood 27 perches, or thereabouts.

The above farm abounds in coal and iron mine, and has opened thereon, but not at present worked, a quarry of excellent paving stones, which are beautifully veined, and when polished become a good substitute for marble; and has passing through it a railway, which connects it with the Taff Vale Railway and the Glamorganshire Canal, from which it is distant about two miles.

The tenant, Mr. Thomas Edwards, will show the premises; and further particulars may be had of Mr. Cuthbertson, solicitor, Neath.

ST. BLAZEY, CORNWALL.—IMPORTANT PROPERTY.

MR. COAD will SELL, BY PUBLIC AUCTION, at the Pack Horse Inn, St. Blazey, on Wednesday, July 3, 1850, at Three o'clock in the afternoon (in such lots and subject to such conditions as will be then and there produced), the FREEHOLD and INHERITANCE of the

BARTON AND FARM OF ROSELYON,

Situate in the parish of ST. BLAZEY, Cornwall, now in the occupation of Mr. James B. Richards, and others, the Rack and Conventionary Tenants thereof, together with ONE UNDIVIDED EIGHTH PART of BISCOVEY COMMON, in the same parish, and a MOIETY of the proprietor's ESTATE and INTEREST in all MINES, MINERALS, and UNDERGROUND PROFITS within and under the same Barton and Common.

The Barton of Roselyon comprises a commodious dwelling-house, walled garden, all necessary farm buildings, about 70 substantially built dwelling-houses, let on leases for lives, and about 208 acres of rich arable, meadow, and pasture land, including 4 acres of excellent orchard, and there is on the property a large malthouse, adjoining to the thriving port of Par.

The whole of Biscovey Common contains about 42 acres of land, which is let with the dwelling-houses built thereon, on leases for lives.

One part of Roselyon estate is in grant to the adventurers of Par Consols Mine, and the other part to West Fowey Consols Mine adventurers—the latter mine being principally in this estate. From the great value of the lodes in Par Consols Mine, now being worked on in Roselyon, and from the discovery of highly productive lodes in the West Fowey Consols, immense returns of copper and tin ore may be expected—the best miners having expressed an opinion that there is no property in Cornwall likely to be so productive of minerals as Roselyon.

To view the premises apply to Mr. Richards, to the tenants, or to Mr. Medland, of the Pack Horse Inn, in St. Blazey. Capt. Seccombe,* of Stowes Cottage, near Liskeard, will give any information respecting the mineral character of the estate, and further particulars may be known of John Rogers, Esq., the proprietor, Liskeard, or to Mr. G. Geach Liskeard, at whose office a plan of the estate may be seen.

Dated June 7, 1850.

* The report of Capt. Seccombe on this property will be found under the heading of "Roselyon," among our Mining Correspondence, in this day's Journal.

MINE MATERIALS FOR SALE.—TO BE SOLD, BY PRIVATE CONTRACT, for the remainder of the adventurers' term, of which 20 years are unexpired therein, the valuable TIN AND COPPER MINE, called WHEAL ANDERTON, situated near TAVISTOCK, DEVON, with the ENGINE and MATERIALS thereto belonging, comprising an excellent STEAM-ENGINE, of 30-inch cylinder, nearly new, 8-feet stroke in cylinder, and 7-feet in shaft, boiler, 7 tons, cast-beam, and case.

Also, a 22-inch cylinder ROTARY-ENGINE, new, boiler, 6 tons, drawing machine, and cast-iron stamps—axle attached, to carry 12-heads.

A good WATER-WHEEL, 36-feet diameter, and 3½-feet breast, cast-iron axle, with stamps axle (oak), to carry 12-heads.

PITWORK from surface to the 90 fathom level—consisting of 9 and 8-inch pumps, 8 and 7-inch plungers, 2 H-pieces, with clackdoors, windbores, &c., 1 6-inch, 3 7-inch, and 1 6-inch working-barrels, all of which are in the best possible condition—the greatest part new within the last three years.

Capstan, shears, balance-bob, main-rods and bucket-rods, 60 fathoms of 10-inch and 60 fathoms of 8-inch rope, 150 fathoms ¾-inch, 9 1-16th inch, and ¾-inch chain, horse-whim, pulleys and kibbles, smiths' bellows and anvil, smiths' and miners' tools, dressing tools and sheds, and all other necessary materials to carry out extended operations of the mine.

The attention of miners and adventurers generally are particularly invited, as near £7000 worth of tin and copper has been raised from the mine during the last three years, and the mine is now in work.

For inspecting the mine, application should be made to Capt. Carpenter, on the mine; and further particulars by letter, addressed "Wheal Anderton Committee, Royal Hotel, Plymouth."—Dated Royal Hotel, Plymouth, May 28, 1850.

MR. JAMES CROFTS, of No. 4, KING-STREET, CHEAPSIDE, takes the liberty of soliciting the attention of CAPITALISTS to the MINING INTERESTS of GREAT BRITAIN, as offering, at this time, the SAFEST MEDIUM OF INVESTMENT of any adventures of an acknowledged speculative character, and TENDERS his SERVICES generally for the PURCHASE and SALE of MINING SHARES.

Mr. CROFTS has at present FOR SALE SHARES in most of the MINES of repute, comprising the Tavistock District, and also in Roche Rock, West Providence, Esgair Llee, Cwm Erfin, Bodcal, Llwynmalees, Wheal Trescol, West Tolgus, Grambler and Saint. Aubyn, Wheal Vincent, Wheal Sarah, and Tokenbury; and is a BUYER in Lamherooe Wheal Maria.

☞ Mr. C. is NOT A DEALER, &c., in SHARES for his own account, but only for principals.

METROPOLITAN GAS INQUIRY.—Just published, the REPORT of the PROCEEDINGS before the Committee of the House of Commons on the GREAT CENTRAL GAS CONSUMERS' BILL, including the Addresses of the Counsel. G. Hebert, 88, Cheapside, London.

THE COMMITTEE OF THE GLAMORGANSHIRE CANAL NAVIGATION hereby give Notice, that they are desirous of adopting a PLAN or DEVICE for LOADING COAL INTO VESSELS LYING AFLOAT in the CANAL, FROM BARGES ALONGSIDE, and that they will give a PREMIUM of ONE HUNDRED GUINEAS for the BEST MODEL or EXPOSITION of such PLAN or DEVICE, provided it meets with the approbation of the committee. And Notice is hereby also given, that the committee will meet on the 31st day of July next, at the hour of Eleven in the forenoon, at the Cardiff Arms Inn, Cardiff, to receive and examine such Models and Expositions as may then and there be presented to their notice; and the principal freighters of coal upon the said Glamorganshire Canal Navigation are hereby invited to attend the said meeting, and inspect the said Models and Expositions. It will be necessary that all Models, Plans, and Expositions be delivered at the Cardiff Arms Inn by Nine o'clock of the morning of the 31st of July; and applications for further information will be attended to by JOHN FORREST,

Clerk to the said Navigation, at the Navigation House, Cardiff.

Cardiff, June 5, 1850.

TO IRON AND BRASS FOUNDERS, ENGINEERS, AND MANUFACTURERS OF AGRICULTURAL INSTRUMENTS AND MACHINERY OF EVERY DESCRIPTION, &c.—TO BE LET, OR SOLD, the PREMISES in which an extensive business in the above line has been carried on for nearly 30 years. The steam-engine, blowing machines, furnaces, patterns, moulders' boxes and tools, with the whole or any part of the stock of goods, may be taken at a fair valuation. The premises are situated most eligibly in the centre of a county town, and include a large open yard, with warehouses and shops for carrying on every department of the trade to any extent required.—Address "T. Y.," Mudie and Sons, 15, Coventry-street, London.

TO CONTRACTORS, BUILDERS, AND OTHERS.

TO BE SOLD, BY PRIVATE CONTRACT, the ENGINES, MACHINERY, &c., which have been used in the erection of the Britannia-bridge, consisting of ONE 40-horse HIGH-PRESSURE ENGINE, with 18-inch cylinder, and 3-feet 6-inch stroke, with boiler complete, drum and hoisting gear; ONE 25-horse HIGH-PRESSURE ENGINE, with 14-inch cylinder, and 2-ft. stroke, with portable boiler complete, drum and hoisting gear; travelling cranes, landing cranes, setting machines, single and double purchase crabs, blocks, chain and tackle of every description, and of first-rate quality.—Application to be made to Messrs. B. J. Nowell and Co., at the works, Britannia-bridge, Bangor, North Wales.

SOUTH WALES.

TO BE SOLD, BY PRIVATE CONTRACT, a FREEHOLD ESTATE, on the line of the South Wales Railway, with IRON-WORKS, COLLIERIES, and BRICKYARD, consisting of upwards of SEVEN HUNDRED ACRES of FREEHOLD LAND, in a high state of cultivation; TWO BLAST-FURNACES, with casting-house, hot-air stoves, and all other appliances for the Manufacture of Pig-Iron and Castings.

A NEW BLAST-ENGINE (by the first makers), of great power, capable of working an additional number of furnaces, with an ample supply of COAL and IRONSTONE on the estate, worked at a cheap rate, and additional mineral rights adjoining, together with [illegible] for working the Mines and Brickyard, and most convenient railroads and surface roads.

The iron-works have been recently in operation, and could be resumed at once. The colliery business is considerable, there being a good market for the coals, and the collieries near an excellent harbour, with communication by canal. There is also an ample supply of fire-clay upon the estate, with kiln, drying stove, and clay rolls, and every requisite for manufacturing fire-bricks at a remunerating price.

There is an excellent residence on the estate, delightfully situated, besides manager's house and counting-house, and numerous workmen's cottages—the whole in good repair.

For particulars apply to Mr. R. W. Jones, C.E., Loughor, near Swansea.—June 10.

VALUABLE COPPER AND LEAD MINE TO BE LET ON LEASE, for 31 years.—This property has been procured at considerable expense from the Commissioners, on the Mountain of Mallane, in the parishes of Celycwm and Caye, in the county of Carmarthen. The copper lode is about 3 feet wide, composed of gossan and spar, and from 5 to 8 inches of copper lying on the side. The hill is above 10,000 acres, consisting of several lodes of copper, which have never been worked, but are considered worthy of a trial.

For further particulars apply to Isaac Davies, Melmyrhas, near Llandovery, Carmarthenshire.—The proprietor proposes keeping a few shares for himself.

LEAD MINE IN DENBIGHSHIRE, in the vicinity of the Westminster and Belgrave Lead Works.—TO BE DISPOSED OF, an INTEREST in the ABOVE MINE.—For particulars apply by letter (post-paid), or by personal interview, to Mr. Meredith, 24, New Broad-street, who will furnish information to parties desirous of embarking therein.

LANIVET CONSOLS MINE.—This MINE, situate at the foot of the Granite Hill, 2 miles south of Bodmin, from which copper ore of the value of £21,000 and upwards was raised and sold in the last four years, and £500 in the last month of its being worked, was stopped in 1847, in consequence of the then general depression, and other peculiar circumstances, not affecting the credit of the adventure.

The sets, two in number, have recently been taken, one at 1-24th, and the other at 1-20th dues, for 21 years, by a few individuals, who are willing to TREAT for the DISPOSAL of the MINE to CAPITALISTS desirous of embarking in such an undertaking, who would find it an advantageous speculation.—Full particulars may be obtained on application to Mr. Bray, Town Clerk, Bodmin.—June 10, 1850.

SNOWDON COPPER MINE, in the parish of BEDDGELERT, county of CAERNARVON.—*ON THE COST-BOOK PRINCIPLE.* In 2048 shares, of £5 each.—Deposit £3 per share, without further calls—the remaining £2 being receivable out of the returns of the mine.

Upwards of £8000 have been expended on this mine and the works thereunto appertaining; in consequence, the present returns may be estimated at from 40 to 50 tons per month, according to the mining strength employed. There are now ready for sale upwards of 30 tons of ore.

In order to extend the operations of the mine, and carry out some valuable discoveries of mineral lodes, the mine is now divided into 2048 shares, of which 1048 are offered to the public, subject to the before-mentioned deposit as working costs.

For prospectuses, with full particulars and reports, apply to Mr. Maniere, solicitor, 2, Scott's-yard, Bush-lane, Cannon-street, where specimens of the ore may be seen.

EAST CORNWALL ASSOCIATION, FOR MINING AND OTHER PURPOSES.

PROSPECTUS.

The objects of the association will be chiefly—the Purchase of Mine Shares—to take Mine Setts, and develope the Lodes—to Work Mines—to Purchase Mines about to be abandoned for want of Capital, and to Purchase by Private Contract, or otherwise, Mine Materials.—The Association will consist of three classes, of 64 members in each class:—

The First Class will deposit	£1 0 0	every month.
The Second Class ditto	0 10 0	,,
The Third Class ditto	0 5 0	,,

The monthly deposits of each class to be deposited in a respectable bank at interest, or be employed by the managers in accordance with the objects of the Association.

Each member will be entitled to the same proportion of the interest or profits accruing to the Association, as he has deposited.

As soon as 20 applications have been made in each class, a meeting of the said applicants will be convened by G. W. Pickthorn, Esq. Secretary pro tem., for the purpose of electing a president, three vice-presidents, and 15 associates, and these will conduct the business of the association, and remain in office for six months, after which the whole body of the Association will exercise the right to nominate and appoint all the aforesaid officers, together with the secretary, annually, in the manner following—viz.:

The President to be elected by the whole body, from the first class.
One Vice-President by the whole body, from each of the three classes.
Eight Associates by the whole body, from the first class.
Four Associates by the whole body, from the second class.
Two Associates by the whole body, from the third class.
The Secretary to be appointed by the whole body, from either class of the society.

All these officers and associates to be eligible for re-election.

No officer to be entitled to a remuneration except the secretary.

Application for a share in either class to be made in writing, containing the name and address of the party, to G. W. Pickthorn, Esq., the secretary pro tem.

The first applicants will, in every case, have the preference.

Callington, May 27, 1850.

FORM OF APPLICATION.

Sir,—You will please to enter my name as a member of the East Cornwall Association in the —— Class.

Name.....

To G. W. Pickthorn, Esq.
Moditon Cottage, Callington.

Profession.....

Residence.....

TO METALLURGISTS.—A YOUNG MAN, who has for a long time been engaged in the Smelting of Copper Ores, and the Extraction and Refining of Silver and Gold, is prepared to treat for an ENGAGEMENT with parties engaged in the COPPER or SILVER TRADE. The advertiser is perfectly acquainted with Analysis, Assaying, and the several modes of smelting practised both at home and abroad. The highest references given.—Address (by letter) "H. M.," office of the *Mining Journal*, 26, Fleet-street.—London, June 12, 1850.

STEAM-ENGINE.—WANTED, for WHEAL VENTON, near LISKEARD, a SECOND-HAND 22-inch cylinder WINDING and PUMPING-ENGINE, with BOILER, &c., complete.—Address, stating full particulars, with lowest price erected on the mine, to Mr. John Watson, 13, George-yard, Lombard-street, London.—June 13, 1850.

STEAM-ENGINE FOR SALE,—36-inch cylinder, 11-ton boiler, 10-feet stroke, direct-acting, very strong, and only done two years' work. To be seen at Lostwithiel Consols Mine, near Lostwithiel.—Apply, stating cash price, to Captain Eustace, Lostwithiel, Cornwall.

TO BE SOLD, BY PRIVATE CONTRACT, a CONDENSING STEAM-ENGINE, 24-inch cylinder, 5-feet stroke, double power, on Boulton and Watt's principle; has only been at work six months—will be sold cheap, and to a satisfactory party liberal terms of payment will be given.—For particulars apply to Mr. Robert Wrightson, metal broker, 2, Peter's-place, Rumford-street, Liverpool.

TO BE DISPOSED OF, in ONE THOUSAND SHARES, of £5 each, that well-known and valuable LEAD WORKS, called the NEW-BOROUGH MINE, situated near FESTINIOG, Merionethshire, North Wales.—For particulars apply to Mr. P. Jones, Newborough Mine, Festiniog, North Wales.

N.B.—An AGENT WANTED to DISPOSE of SHARES in LONDON.

WANTED, in a MANUFACTURING BUSINESS and IRON TRADE, A PARTNER, who can command from £6000 to £8000, and who may be actively engaged or otherwise. The business is well established, and in full operation, yielding good profits, and capable of considerable improvements.—Communications, addressed to "A. B.," 25, Basinghall-street, London, will have prompt attention

N.B.—None but principals will be treated with.

PARSEY'S PATENTED COMPRESSED AIR-ENGINES, applicable to Locomotive, Mining, and Stationary purposes, especially where steam is dangerous or objectionable. The duties of branch lines with small traffic performed at a great saving. The economy will give a cheerful feature to the present depressed state of railway property. The small engine may be seen, information given, and licenses granted, at 455, New Oxford-street.

CAMERON'S COALBROOK STEAM COAL & SWANSEA AND LOUGHOR RAILWAY COMPANY.—LLANELLY BRANCH LINE.—The directors are ready to RECEIVE TENDERS for the SUPPLY of THREE HUNDRED TONS of RAILS for the permanent way of this branch line, now in course of construction, to be delivered at Llanelly not later than July next. Specifications may be had at the Company's office here. By order, A. C. HOWDEN, Secretary.

Offices, 2, Moorgate-street, London, June 4, 1850.

IRON PIPES.—The LOCAL BOARD OF HEALTH FOR THE DISTRICT OF CROYDON are desirous of RECEIVING TENDERS for the SUPPLY of WATER SERVICE PIPES, to the extent of about ONE THOUSAND TONS.

Specifications and forms of tender can be obtained after the 18th day of June instant, upon application to me, inclosing 1s. in postage stamps, and the tenders, agreeably to the specification, must be forwarded to the office of the board, at North End, Croydon, by the 9th day of July next. By order of the board,

Croydon, June 12, 1850. GEORGE PENFOLD, Clerk.

MINING PROPERTY.—Mr. HERRON has SHARES in the best DIVIDEND MINES FOR SALE, and which will give to the purchaser 17 to 25 per cent. for the outlay; amongst others are the following:—Wheal Seton, Carn Brea, South Frances, Gwatt Basset, Treviskey and Barrier, West Buller, Botallack, Stray Park, Levant, Alfred Consols, Treleigh, West Trethellan, Tresavean, Holmbush, Devon Great Consols, East Wheal Rose, Gwennap Consols, Trelawny, Tremayne, West Providence—Cobre, Santiago, St. John del Rey, and United Mexican Mines.

MINING OFFICES—33, CLEMENT'S-LANE, LOMBARD-STREET.

MINING INVESTMENT.—Messrs. BOXALL & CO. have SHARES FOR SALE in several DIVIDEND MINES, giving from 15 to 25 per cent. on present purchase; also Shares for Sale where no further calls will be required, and DIVIDENDS paid within three months. The attention of CAPITALISTS is INVITED to the LAST NAMED, as being safe investments, these mines having proved very rich, are now making good returns, and the shares can be bought at a moderate price.—Information regarding new mines brought before the public, with the market prices of shares, furnished gratuitously.

MINING OFFICES,
5, *CROSBY-HALL CHAMBERS, BISHOPSGATE-STREET, CITY.*

MESSRS. WATSON & ENSOR, MINING AGENTS,
4, *TOKENHOUSE-YARD, LOTHBURY, LONDON.*

MR. TRIPP, MINE AGENT, EXCLUSIVELY FOR PRINCIPALS, is instructed to BUY and SELL in most of the best DIVIDEND-PAYING MINES; also in NEW ONES, having present and prospective advantages.

MINING OFFICES,
ST. MICHAEL'S CHAMBERS, ST. MICHAEL'S-ALLEY, CORNHILL, LONDON.

MR. T. A. READWIN, MINING OFFICES,
2, *WINCHESTER-BUILDINGS, OLD BROAD-STREET, LONDON.*

MR. C. S. RICHARDSON, CIVIL ENGINEER, LAND AND MINING SURVEYOR.
No. 15, OLD BROAD-STREET, LONDON.

JAMES LANE, MINING SHARE DEALER,
80, *OLD BROAD-STREET, LONDON.*

BRITISH AND FOREIGN REGISTRY OFFICE.—PARTIES having MINERAL ESTATES, COLLIERIES, or MINES, FOR SALE, or SHARES TO DISPOSE OF, in DIVIDEND MINES, or OTHERS, by enclosing a list of the number and price of such shares, and particulars of such property, the same will be REGISTERED FOR SALE, and commission charged only on sales taking place Money advanced if required.—Apply to Messrs. DURRANT & Co., 58, Lombard-street

ANGLO-MEXICAN MINING ASSOCIATION, 5, Broad-street-buildings, London, June 12, 1850.—Notice is hereby given, that a further DIVIDEND of THREE SHILLINGS and SIXPENCE per share out of the assets of this Association will be PAID on and after the 18th day of June inst. The certificates are required to be left at the office three clear days for examination.—Office hours from Eleven to Three. ALFRED GODFREY, Secretary.

GENERAL MINING ASSOCIATION.—Notice is hereby given, that the YEARLY GENERAL MEETING of the proprietors in this company will be HELD at this office on Thursday, the 27th day of June, 1850, at One o'clock in the afternoon precisely, for the purpose of receiving and considering a Report of the Directors, announcing a Dividend, and of transacting the ordinary business of the Association. And Notice is also given, that the same meeting will be, and hereby is declared, an Extraordinary General Meeting, for other purposes, which it is hereby (according to the terms of the Charter and Deed of Settlement of the Association) notified may be known on inquiry at this office. By order of the Board of Directors,

Office of the General Mining Association, J. B. FOORD, Secretary.
52, Old Broad-street, London, June 10, 1850.

GUADALCANAL SILVER MINING ASSOCIATION—ADJOURNED MEETING.—Notice is hereby given, that the GENERAL MEETING of the 29th ult., adjourned to this day, stands again ADJOURNED to Wednesday next, the 19th of June, at Two o'clock precisely, when Captain Rule is expected to be present. By order, H. T. RYDE, Secretary.

34, Broad-street-buildings, London, June 12, 1850.

NATIONAL BRAZILIAN MINING ASSOCIATION.—The DIRECTORS' REPORT may be OBTAINED at 26, Throgmorton-street.

June 5, 1850.

ST. JOHN DEL REY MINING COMPANY.—Notice is hereby given, that the SIXTEENTH HALF-YEARLY DIVIDEND, being £1 10s. per share, on the shares of this company, will be PAYABLE at this office on Monday, the 10th of June inst., and every succeeding day, between the hours of Ten and Four.

Forms for claiming the dividend may be obtained at the Company's office, and must be left three clear days for examination previous to payment.

8, Tokenhouse-yard, London, June 8, 1850. JOHN ROUTH, Managing Director.

WHEAL MAY MINING COMPANY.—Notice is hereby given, that a SPECIAL MEETING of the adventurers in this Company will be held on Friday next, the 21st day of June inst., at the Rose and Crown Tavern, No. 66, Old Broad-street, London, at Three o'clock in the afternoon precisely, for the purpose of appointing a Secretary, in the place of Mr. C. S. Richardson, receiving a report from the committee, examining the accounts, and on general business.

London, June 14, 1850. H. PEET, Secretary pro tem.

Transactions of Scientific Bodies.

MEETINGS DURING THE ENSUING WEEK.

THIS DAY	Asiatic—5, New Burlington-street	2 P.M.
MONDAY	Statistical—12, St. James's-square	3 P.M.
	Chemical—142, Strand	8 P.M.
TUESDAY	Linnæan—Soho-square	8 P.M.
	Horticultural—21, Regent-street	1 P.M.
WEDNESDAY	Geological—Somerset House	8½ P.M.
	Royal Botanic—Inner Circle, Regent's Park	3½ P.M.
THURSDAY	Royal—Somerset-house	8 P.M.
	Antiquaries—Somerset-house	8 P.M.
	Numismatic—41, Tavistock-street, Covent-garden	3 P.M.

GEOLOGICAL SOCIETY.

JUNE 5.—Sir CHARLES LYELL (President) in the chair.

His Grace the Duke of Argyle was elected a fellow. The following communications were read:—

1. On Fossil Lepadidæ; by C. Darwin, Esq., F.G.S., &c. After noticing the confusion that exists in the nomenclature of the comparatively few species of cirrhipeds, hitherto found in a fossil state, arising both from the easy separation of the several dissimilar valves soon after the death of the animal, and from the imperfect characters afforded by the valves themselves, which are, as it were, but parts of the crustacean carapace, neither accompanied with, nor distinctly impressed by, any of the soft parts of the animal, the author pointed out such particular valves as were sufficiently distinct, and had sufficiently constant characters to be considered as characteristic of genera,—as, for instance, the keel, or dorsal, valve in *scalpellum*, and the scutal, or inferior lateral, valve, in *pollicipes*. The pedunculated cirrhipeds (*lepadidæ*) were stated to have made their first appearance in the lower oolite, and to have reached their culminant point in the cretaceous epoch. The absence of sessile cirrhipeds in the earlier and secondary formations, and their occurrence for the first time in the eocene deposits, were then noticed, the author dwelling on the characters of the genus *verruca*, and pointing out that, as the type of a group intermediate between, and of equal value with, the sessile and the pedunculate cirrhipeds, it offered no real exception to the rule that sessile cirrhipeds do not occur in the secondary formations; but that, on the contrary, it harmonizes with the law of relation between serial affinities of animals and their first appearance on this earth. The author concluded with a few observations on the comparative ranges of recent and fossil cirrhipeds, and on the close affinities between the extinct and the living forms.

2. On the Tertiary Strata, and their Dislocations in the Neighbourhood of Blackheath; by the Rev. H. M. De la Condamine. The author stated that the cuttings made on the lines of the North Kent and the Brighton Railways had not only yielded good sections of the plastic clay series, but had disclosed an important dislocation of the strata at Deptford, and that the escarpment of the chalk and superincumbent strata along the south side of the Thames, as far as Erith, appears to have resulted from the continuation of this line of fault—the same circumstance also accounting for the existence of the London clay in the Greenwich marshes at an unexpectedly low level. A minute description of the plastic clay beds occurring in the environs of Blackheath having been given, the author proceeded to detail the faults found in the chalk and the superimposed beds. These occur in lines running north-east and south-west, and crossing the North Kent Railway, near Deptford, at right angles; another fault occurs at Lee, south of Blackheath, having a similar direction to the former; and evidence of the existence of other faults occurs near Eltham, Chiselhurst, and Bromley. The disturbance of the strata at Deptford produced six faults, the displacement in the chief fault amounting to 120 feet. The date of these dislocations the author considered to have been posterior to that of the partial denudation of the London clay. The author concluded with some remarks on the drift and reconstructed beds cut through by the Lee stream, and on the evidence of glacial action in the disturbed strata on the middle of Blackheath, and in the hollow of Tranquil Vale.

3. On the Diluvia and Valleys in the Neighbourhood of Bath; by C. H. Weston, Esq., F.G.S. The author remarked, that a considerable patch of diluvium on Kingsdown, near Bath, consisted exclusively of chalk-flint gravel, and that its source appears to have been the chalk hills near Devizes, the period of its transportation being prior to the excavation of the now existing valleys, probably during the eocene period. He had also noticed the evidence of the former existence of a similar drift on Farleigh Down, near Bath; and considered it probable that aqueous action had removed the greatest part of the chalk-flint drift, which more anciently may have extended even to the very base of the Wiltshire chalk range. With regard to the diluvium occupying the valley of the Avon, on the other hand, it was stated that it consisted of the debris of almost every formation, from the greensand to the carboniferous limestone, together with a few chalk flints; that it was probably derived from the rocks lying north and south of Frome, and deposited in the pliocene period, contemporaneously with the excavation of the existing valleys.

4. On the Freshwater Marl in the Fens of Cambridgeshire; by W. J. Hamilton, Esq., Sec. G.S.

The following papers are to be read on June 19:—1. On a Section of the Lower Greensand near Devizes; by W. Cunnington, Esq.—2. On the Age of the Fossiliferous Sands and Gravels of Farringdon; by R. A. C. Austen, Esq., F.G.S.

PROFESSOR ANSTED'S LECTURES ON PRACTICAL GEOLOGY.

On Thursday last Professor Ansted concluded his series of lectures on Practical Geology, at the Royal Institution, by describing some of the natural and mechanical phenomena attendant upon mining for metals. The first object was to find out the vein, and also whether it was one likely to be worth while working. In Germany, where the ore sought for was silver, the discovery of a large vein was the development of a property of enormous value; but although the vein might be the purest silver, it might be so small that the expense of working would more than swallow up all the profit when it was obtained. He might refer to the case of a mine in the Black Forest, which had been worked for centuries. From time to time large quantities of ore had been discovered, but not sufficient to cover the expenses. In the first instance, probably the vein was so productive as to induce the miners to persevere long after it had ceased to be so; and then, from time to time, discoveries of metal were made sufficiently important to stimulate enterprise, but not enough on the whole to pay for the aggregate expense. Before, however, any opinion could be given of the value of a lode, it must first be found out; and in Cornwall this was, in past times, mostly done by some pretended mysterious agency, and was even now the practice. There were many people in Cornwall who pretended, by holding a twig of a certain description in their hands, to say at once when they stood over metallic produce, and even of what kind was the metal under their feet. The old books of mining describe particularly the "dowsing" or divining rod, and the order in which the metals are found. If the pressure upon the rod were considerable the metal was said to be gold, then copper, then iron, then tin, then lead, and then limestone—in some such order, at least, was this held to be the case. No doubt, in a country like Cornwall, it was difficult to go half a mile in any direction without passing over some metal, and it was, therefore, easy to guess at the existence of metalliferous veins; and this circumstance, with the fact that all favourable prognostications being invariably recorded or remembered, while those which were unfavourable were forgotten or attributed to some adverse influence upon the operator, might account for the prevalence of this custom in past times, and its existence now. It was also said that the existence of veins was indicated by a peculiar luminous exhalation, of the nature of a lambent flame, playing over the surface, and certainly this circumstance, supported by evidence, which, although not absolutely indisputable, was of a character which hardly permitted it to be cast aside as worthless. It was conceivable that in certain peculiar electrical conditions of the atmosphere there might be an action of this kind at work, particularly where lodes of different metals crossed each other; these, however, were not modes to be adopted by practical men. The first thing to be looked for was the outcrop of the lode; this might be readily seen sometimes upon sea cliffs and rocks, or where the earths' surface was laid bare naturally or otherwise, and in this way lodes were not unfrequently found. In rich mineral districts lumps of ore were turned up in removing the surface for agricultural purposes, and in Australia and America, and new countries, were metals had never before been worked, this was the usual manner in which attention was drawn to their mineral wealth.

In mining countries, however, lodes were often looked for by what was technically called "shoding;" supposing there were found in the bed of a river, or at the foot of a hill, deposits containing small portions of ore, which the water would naturally leave, on account of its specific gravity being greater than that of the sand usually suspended in it, the ground was carefully examined in the direction from which the water ran, until the appearances disappeared. The lode was then close at hand, and by close investigation the outcrop was found. "Costeaning" was another method, and this consisted of running a trench at right angles, to the known direction of veins in the district. If, however, in the district the metals were not near the surface, an "adit level" was now not unfrequently run. This was, so to speak, an horizontal shaft, opening at the foot of a hill, and used afterwards for drainage, when the lodes were discovered; of course, the richer the lodes were near the surface, the more valuable they were, because the cost of working was so much less than when they were at great depths. This however, was dependent upon local conditions; tin veins were generally rich near the surface, in Cornwall, and the quantity of material removed by costeaning in search of it was wonderful, and the country might be seen to be traversed by innumerable burrows in every direction. Where it was not rich near the surface, a shaft must be sunk, and the produce laid bare, with a view to the ultimate profit of the mine, rather than to immediate gains. [The lecturer here referred to extensive plans of the workings of the Fowey Consols Mine, in illustration of his subject.] The operation of sinking was continued to a considerable depth, and horizontal galleries were run out from the shaft, wherever it was thought advisable to remove the lode. The great difficulty was always the presence of water; in coal districts there was enormous quantities, but the rocks in metalliferous districts produced even more. The first operation, with reference to drainage, was to run out an adit level from the shaft to the lowest point at which the surface could be reached; the water was then raised from the lower depths of the mine to the adit level, and conducted along that until it made its appearance at the surface, and ran away. In many mines there were two of these levels, the shallow adit and the deep adit; the first was that generally made by costeaning; the last, as the mine increased in depth and importance. The depth was always reckoned from the deep adit, and between 200 and 300 fms. was not unfrequently reached. The Tresevean Mine was 300 fms., measured, not to the surface, but from the bottom to the deep adit. The lateral pressure of the superincumbent body was very considerable, and the timbering to support the sides was a most important matter. [The lecturer illustrated the timbering by reference to various diagrams, which also showed the positions in which the miners worked.] The ore was secured by the pick or by blasting; at the surface it was pounded by machinery, and the metal separated by its specific gravity, in passing the powder through water, or, in the case of some ores, "roasted."

It was important to refer to those evidences by which the nature of mining property was to be ascertained. The mining records of this kind were not kept in England in such a manner as they ought to be. In other countries records were carefully kept, by consulting which the history of any mine might be made out perfectly. The records necessary for this purpose were chiefly maps and plans of various kinds. We had an admirable foundation now for such records in the Ordnance maps, which gave accurate indications of the geological structure of each county, and the minerals they contained. Besides this, a ground plan, showing the position of the lodes, how far they are worked, the boundary of each property, and where they intersect the surface. There should also be a longitudinal section, showing the underlie of the beds. It was also most important to consider well such plans in relation to the adit, and not less in reference to the whole district than to the particular mine for which it is to be run, and the way in which adits are connected together. This could only be done well by being planned and registered. These matters had been much neglected in England, chiefly because the mining had been conducted by unscientific men, which was not the case on the continent. This was a remarkable instance of the value of the applications of science practically.

In bringing this course of lectures to a close, Prof. Ansted said that he need not detain his auditory long. His object had been simple and definite, and it had been steadily kept in view throughout. It had been to draw attention to the applications of geology in such a way, as to give a sketch, or outline, of its practical applications, and the way in which it could be most useful to those who were, by property, or position, interested in such subjects, as well as generally to show the importance of geology as a science.

In conclusion, he begged to quote a passage from a work he had recently published,* which stated his object in this course of lectures as precisely and accurately as possible:—"In order to arrive at any useful practical result, the student must possess clear and definite notions concerning the fundamental facts of geology, including under this head the nature of simple minerals, the laws of chemical combination and affinity, the nature of simple rocks, the position of rocks, and the nature of their disturbances, dislocations, and metamorphoses. Without this kind of knowledge all other is superficial and essentially unpractical—the student may be learned in what others have done, but he can make no useful observations or deductions that are at all to be depended on. I do not intend to say, that in order to become a useful observer, and to be capable of applying geological knowledge, the student must be a perfect adept or master of all details and views of the science. This is by no means necessary. What is wanted is rather a philosophical knowledge of general principles—a knowledge obtained not merely by reading books, or listening to lectures, but by reflection and actual observation. In this way only can the pursuit of any science be useful [and this is the way in which I hope the present course of lectures may have been useful and suggestive]. I have endeavoured not merely to describe facts, but to teach principles, leaving it [to you] to apply those principles and digest the facts; working out in this manner a sufficient education in the subject. Geology is a science of induction, derived from a multitude of observed facts and experiments—the experiments being indeed those which Nature has made for us, and which it is our business to investigate. The facts observed are too numerous, too distinct, and too nearly connected to admit any fear that the legitimate conclusions that have been drawn from them can ever be shaken. By the study of geology the mind becomes stored with knowledge of the highest importance and the deepest interest; and in accumulating, arranging, and digesting this knowledge we gradually become familiar with the generalisations to which it leads, and are at length able to make use of and apply it."

"'Tis all for the Best"

[SIR,—Permit me to hand you for insertion the following admirable verses, as calculated to encourage persevering industry to struggle on through adverse circumstances, *confiding in the providence of God, and honest exertions, for final success.*—T. M.]

This is a motto which brightens and cheers,
Which should animate every breast;
For, amid all your numberless fears,
It will tell you, "*'Tis all for the best.*"

Though the future should ominous be,
And the present not yield any rest,
Yet 'twill fill the despondingwith glee,
To remember, "*'Tis all for the best.*"

Though billows of sorrow should try
To overwhelm you at every test;
Yet your courage above them shall fly,
For you know that "*'Tis all for the best.*"

Though dark clouds should gather around,
And your spirits grow sad and oppressed,
Yet cheer up, and give heed to the sound,
Which will tell you, "*'Tis all for the best.*"

Though disease should enfeeble your bones,
And pain your rack'd body arrest,
Hope quickly will soften your groans,
As she whispers, "*'Tis all for the best.*"

Though poverty's blast should succeed,
And take away all you possess'd,
How cheering to know 'twas decreed,
And assured that "*'Tis all for the best.*"

Though falsehood should govern your friends,
To hate you whom once they caressed,
Yet the future will make you amends,
For, remember, "*'Tis all for the best.*"

THE INVISIBLE VENTILATOR.—Among the numerous appliances which the movement for the adoption of sanitary measures has placed before the public, ventilators for circulating currents of pure air through our dwellings have taken up no small share of public attention. They have been so numerous that it would indeed be strange if some of them were not effectual; but the majority of them have either been totally inefficacious for the purposes intended, or clumsy in appearance, and a consequent eye sore, destructive of the harmony of the surrounding architecture. A ventilator, combining elegance of appearance, with capabilities to admit large or small currents of air as required, has just been registered by Mr. Bessel, the glass merchant of Farringdon-street, and is likely to come into general application. It consists of a plate of glass, hanging from its upper edge, and opening outwards to any extent—being simply and easily regulated by a screw and pulley, with a cord, similarly to a venetian blind. From the bottom of the frame there is a fixed plate of glass for about one-half of its height, against which the ventilator shuts, and which, when open, guides the air current, giving it an upward course, and thus preventing those downward draughts, so unpleasant in cold weather, and so liable to give cold in summer. There is also another modification of the plan, by which its position is inverted—the hinge being at bottom, and the top part opening inwards, in which case the fixed half pane of glass is dispensed with. From the elegance of construction a casual observer would scarcely observe them—hence the title, "invisible;" and several eminent members of the faculty, and of engineering science, have alresdy expressed their conviction of the soundness of the principles on which they are constructed.

NEW DRESS FASTENER.—Mr. E. G. Bradford, of Teignmouth, Devonshire, jeweller, has recently registered a very ingenious novelty as a fastener for dresses, which may be thus described:—To a pin, similar to that of an ordinary brooch, is attached a small jewel box; the point of this pin sheathing in a sheath, attached to another jewel box, corresponding with that before described. The first box has a small chain attached, the other extremity whereof is loosely secured to a bent wire, being prevented from slipping over at top by a projection, and from slipping down the said wire by a catch, which is hinged to the wire on that side. The second box has a similar chain attached, to the other extremity of which is loosely secured to the before-mentioned wire at the opposite side to the former chain; against this side of the wire the catch clips, and prevents this chain from slipping down, being secured from slipping over at top, as before-mentioned. Attached to the lower part of the bent wire is a pendant ornament, which may be of any form, as a cross, heart, &c. In using this fastener, it is required to release the point of the pin, by pulling open the catch, and allowing the second chain to slip down; then passing the pin through the garment to be secured, when the sheath is to be replaced over the point of the pin, the catch to be shut down, and the fastening is complete.

* *An Elementary Course of Geology, Mineralogy, and Physical Geography.* By D. T. Ansted, M.A., F.R.S., &c. London: Van Voorst, Paternoster-row, 1850.

"THE TIMES" LIFE ASSURANCE AND GUARANTEE COMPANY.

The wide spread intelligence of the age, and the improved moral tone and character of the middle classes, have led to that vast increase in the institutions for carrying out the principles of life assurance which has so peculiarly marked the past 30 years. The advantages, the blessings, which are secured to many a bereaved family by a small portion of his income being devoted by its head to secure the payment of a certain sum of money at his death, is now generally appreciated, and in many cases the comfort and success in life of the survivors have been secured by these means, who otherwise would have been left in poverty and despair. In addition to the numerous establishments of this description to which we have called the public attention, we have now to notice the Times Life Assurance and Guarantee Company, which commenced business about 11 months since, the first annual meeting of which was held yesterday week. From the report which was then read, we find that during that period the directors have devoted their attention to the organization of extensive and efficient agencies in various parts of the country, and the appointment of skillful medical men to act as referees, and 300 carefully selected persons have been already appointed. Attention is drawn to the fact that, in consequence of the spread of the cholera, the directors declined taking assurances until the sickness abated, the consequence being, that the period for actual business has not exceeded nine months, and it is with much satisfaction, therefore, they draw attention to the number of assurances effected; the gross sum assured on 217 policies, up to 29th May, being 83,222*l.*, producing an annual income of 1180*l.* 11s. 7d., in addition to which there were proposals accepted, premiums not yet paid, 62 policies, 11,150*l.*—income, 201*l.* 10s. 8d.; proposals under consideration, 45 policies, 9425*l.*—income, 188*l.* 18s. 6d.; proposals declined, 67 policies, 29,720*l.*—income, 647*l.* 4s. 7d.: making a total of applications of 391 policies, 133,517*l.*, and income 2218*l.* 5s. 4d. The average amount of each policy does not exceed 350*l.*, thus spreading the policy liabilities over a large surface. They also state that great success has attended the guarantee branch of the company's business, a great many institutions having accepted the guarantee of the company; and the commercial world generally, the leading railways, bankers, charitable institutions, and other corporate bodies have placed confidence in them. The system of mutuality applied to guarantee has been first introduced by this company, and is meeting with the most marked success, being now under the consideration of some of the largest corporations,* with a view to its adoption, it being generally felt as a truth, that by making the guarantee premiums an investment, instead of a tax on the labour and honesty of individuals, the only objection which has been made to public guarantee, is at once removed, and the chances of dishonesty materially lessened. The directors call upon the shareholders to co-operate with them in obtaining substantial parties to subscribe for the remaining shares, and state that in every case up to the present time the shareholders are men of known capital, standing, and respectability. It is proposed that 4 per cent. per annum should be paid on the subscribed capital.

From the prospectus of the company we find that the Early Closing Association has allied itself to this company. The principal features in the company's regulations are, that four-fifths of the profits will be divided every five years among the assured in the guarantee department annually. The payment of premiums is arranged to suit all classes, being either yearly, half-yearly, quarterly, or monthly. Great facilities are afforded for the renewal of policies; if an assurer be unable to pay his premiums he will be allowed, on giving due notice, to charge the amount thereof upon his policy to the extent of its value as then ascertained by the actuary, thus preventing the sacrifice of the provision he had made for his family—a feature, we believe, peculiar to this office. One description of assurance may be exchanged for another; and as many persons neglect to insure for fear of being unable to keep up their payments, this company will grant an absolute policy, with profits, for a single payment. Thus, a person aged 25 may, for 10*l.*, receive a policy, with profits for 22*l.* 3s.; and, at 35, for 19*l.* 2s. Progressive assurances can be effected by means of deposits, withdrawable on due notice, the amount of assurances to continue in force as long as the deposits remain in the hands of the company; and, if withdrawn, the assurance may continue by payment of 3 per cent. on the amount so withdrawn. Public guarantee affords the most complete security to the employer, and preserves the independence of the employed, and this company have established a guarantee department on the principle of mutual assurance.

The ordinary rate of premium will be 25 per cent. below what has hitherto been charged, and four-fifths of the profits will be divided among those whose fidelity is guaranteed, in the form of a bonus added to their respective policies, if already assured, or if not assured, then to be applied to the creation of new policies, of such a nature as the life may be deemed eligible for by the directors, which policies may be converted into a deferred annuity, or into a payment in money, should the assignees of the individual require it, thus rendering the payments for the immediate object an instrument of future good to themselves or their families; and as such participation of profits will be forfeited in the event of a breach of trust, an additional incitement to honourable conduct is presented, and one which becomes progressively stronger.

The general tables of the company appear to have been calculated, with due regard to safety as well as economy, and from the most recent data. From the principal features of the Times Life Assurance and Guarantee Company, it is evidently calculated to take a wide sphere, and will greatly aid in spreading abroad the principles of life assurance, and securing its advantages to numerous classes of society.

REWARD OF INVENTION.—The committee of the Glamorganshire Canal, as will be seen by our advertising columns, being desirous of adopting a new plan for the loading coal into vessels, lying afloat, from barges alongside, offers a premium of 100 guineas for the best model for its accomplishment, provided it meets the approbation of the committee. It is by such liberal offers as these that mechanical genius is stimulated to invention. Much credit is due to the committee for their offer, and we hope it will excite other public bodies, under similar circumstances, to "go and do likewise."

IRON STEAMERS.—On Wednesday last experiments were tried at Portsmouth in the presence of Admiral Sir T. B. Capel, Admiral Prescott, Captain Chads, &c., as to the effect of shot on iron vessels. An erection of iron, similar to the hull of a ship, was placed at the distance of 500 yards from her Majesty's ship, *Excellent*, and her guns being brought to play upon it, it was quickly destroyed, affording conclusive evidence that iron steamers are useless as vessels of war.

THE BRITANNIA BRIDGE.—The floating of the first tube of this stupendous structure for the down line of rail from London to Holyhead was effected on Monday last. All the preliminar operations having been carefully completed, the land attachments were cut by a phalanx of seafaring men with axes, and the tube on its pontoons took the tide of the Menai, then at about 12 feet 9 in. in the ascendant, gradually increasing to 18 feet 6 inches, and ultimately, by the time it had reached the piers, a *maximum* of nearly 20 feet—far higher than was expected. It is unnecessary to detail operations necessarily hazardous at every repetition. The pontoons having an aggregate *maximum* floating power of 3000 tons, the immense tube was conveyed upon them to the towers in safety. There were upon the tube in its transit Mr. Stephenson, M.P., Mr. Locke, M.P., Mr. Edwin Clarke, Mr. Brunel, Mr. Bidder, Mr. H. Lee, and Captain Claxton. Starting at a quarter to 8 o'clock, the tube, amid the cheers of the multitude on either shore, "came home to the foot" of the piers at 19 minutes past 8 o'clock, and at 36 minutes past 8 it was placed successfully in the recesses of the tower on the Anglesea side. A very ingenious method, devised by Mr. L. Clerk, one of the engineers, has been adopted to ascertain the expansion and contraction of the tube. With this view an index is attached to the bridge, connected with a strong iron arm, and again with a spirit level to a graduated scale of inches, and by which means every variation in the mass of metal, as affected by either motion or atmospheric influence, is registered. The bridge in this way, by pencil marks, actually records its own condition every day. Besides registering the effect of the passage of every train, and the result of every load over its surface, this admirable contrivance, or tell-tale, places on its tablet, for the use of the engineers, the effect of every wind that sweeps by, and of every atmospheric influence that affects it. The hydraulic apparatus is in its place, so that the raising of the tube will take place almost immediately after the necessary stonework at the side is built in, which will occupy about 10 days. The fourth tube, which is to complete the stupendous structure, will be floated about the 20th July next, should the tides be sufficiently favourable. The entire undertaking will, it is expected, be complete by October.

ORNAMENTS ON STEEL.—Ornaments are now commonly put upon steel by the chemical action of the solutions of the various metals, most of them being combinations with acids. The steel being covered with some etching ground, the design is cut through to the metal, and the metallic solution being poured upon it, the metal or its oxide is precipitated, and a superficial combination is thus effected. Steel may be gilded by the employment of the ethereal solution of gold. This is made by taking a neutral solution of the chloride of gold and agitating it with some rectified ether; the gold is thus separated from the one fluid, and held in solution by the other. Upon dipping steel into this ethereal solution an electro-chemical action appears to take place, the result of which is, that a film of gold is deposited upon the metal. In this way "gold-eyed needles" receive the small coating of the precious metal; and many steel ornaments are thus fancifully decorated. The coating which the steel thus receives is exceedingly attenuated, and much friction removes it from the surface.—*Art Journal.*

* Since the circulation of this report, we understand the Great Western Railway Company have accepted the guarantee of the Times Life Assurance and Guarantee Company.

MINING ALMANACK for 1850.—The SECOND VOLUME of this publication will appear on the 20th inst., with Original Articles and Statistical Matter up to the latest period.—The following are the

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London: Published at the Office of the *Mining Journal*, 26, Fleet-street.

IMPROVED LIFTING JACKS,

MANUFACTURED BY

W. AND J. GALLOWAY,

PATENT RIVET WORKS,

MANCHESTER.

*** The attention of parties who employ

Lifting Jacks,

is respectfully requested to the superiority of those annexed, over those hitherto in use.

IMPROVED RATCHET JACK.

HALEY'S PATENT LIFTING JACK.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

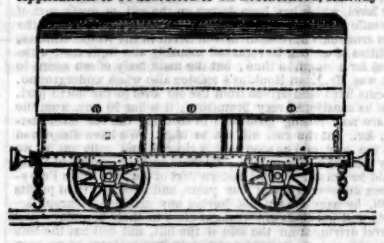
IMPORTANT TO RAILWAY COMPANIES, CARRIERS, AND OTHERS.

ROWLAND BROTHERHOOD'S TILT, for COVERING RAILWAY TRUCKS, WAGGONS, &c.

This invention allows of trucks or waggons being covered or uncovered with surprising ease and facility, so that one porter can uncover two trucks in the space of a minute, and two can re-cover both in the same time. It allows of a small portion, or the whole area of the truck, being uncovered, and affords great facility for loading and unloading, and protecting the goods in these operations, as well as in the course of transit. It can be secured by locks and keys, thus rendering merchandise secure from plunder. It is cheap in its construction, can be applied to railway trucks and waggons generally, and is easily attached or detached. It runs smoothly through the air at high speeds, and against head winds.

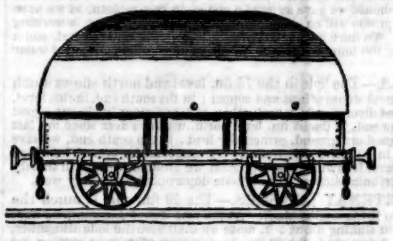
This Tilt has been in use on different parts of the broad guage during the winter, and has been found to work remarkably well in the severest weather. Experienced and practical persons, who have the management of large goods' stations, and have seen these tilts in working, and who know the great wear and tear of cloths, tarpauling, &c., and the inconvenience of existing modes for goods' covering, are of opinion that these Tilts will be of great utility in railway service. The patentee is himself prepared either to construct or, on moderate terms, to license parties to construct his patent Tilts.

Applications to be addressed to R. Brotherhood, Railway-Works, Chippenham, Wilts.



No. 1.

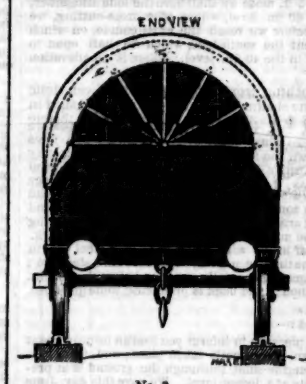
This shows the side elevation of a waggon, with the tilt closed and fastened down.



No. 2.

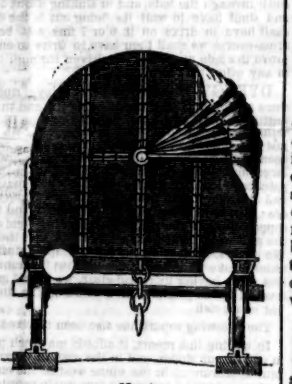
This shows the tilt as applied to a box, waggon, or long-sided truck, with longitudinal bearers.

END VIEW



No. 3.

This is an end elevation of the same on a larger scale, showing the pin and fan which supports and carries over the longitudinal bearers to which the cloth is attached, and which when open lies compactly folded along the side of the truck, leaving the whole area of the truck open for receiving or discharging its contents by crane or otherwise.



No. 4.

This is an end elevation of the same, showing the tilt partially closed, so that the whole or any portion of the truck can be open at pleasure, affording means of protection for part of the merchandise, whilst the other is being loaded or unloaded, or the truck may be used entirely uncovered, without the tilt in the least interfering.

The tilt is applied to box, or low-sided trucks, with carved longitudinal bearers.

THE PATENT OFFICE AND DESIGNS REGISTRY.

No. 210, STRAND, LONDON.

INVENTORS will receive (gratis), on application, the OFFICIAL CIRCULAR OF INFORMATION, detailing the eligible course for PROTECTION of INVENTIONS and DESIGNS, with Reduced Scale of Fees.

Messrs. F. W. CAMPIN and CO. offer their services, and the benefit of many years experience, in SECURING PATENTS and REGISTRATIONS OF DESIGNS, with due regard to VALIDITY, economy, and dispatch—assisted by scientific men of repute.

Also, in MECHANICAL and ENGINEERING DRAWINGS, whether connected with Patents, Railways, or otherwise, by a staff of first-rate draftsmen.

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BY HER MAJESTY'S ROYAL LETTERS PATENT.

MASTERS & CO., ORIGINAL INVENTORS and SOLE PATENTEES of the following SCIENTIFIC and USEFUL INVENTIONS, beg to call the attention of the Nobility and Gentry to their latest discovery in the preparation of SODA WATER, &c. &c., by their

PATENT SODA-WATER AND AERATING APPARATUS,

By the aid of which Soda Water, and all aerated waters, can be made and fully charged with carbonic acid gas in a few minutes, and the flattest Beer or Wine can be made as brilliantly sparkling as Champagne in an equally short time, and the expense mere nothing.—Price of machine, 30s. and upwards, which needs only be seen to be appreciated. Adapted for shippers to every climate. Also,

MASTERS' PATENT ICE SAFE,

For preserving Provisions Cool in the hottest weather in summer.

MASTERS' PATENT FREEZING MACHINE,

For making Dessert Ices, Freezing Spring Water, and Cooling Wine at the same time, with or without ice. The largest size is suitable for confectioners, and will make from 50 to 100 quarts of Dessert Ice in a few minutes.

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For producing Pure Ice from Spring Water, on your own table, in five minutes, without the aid of ice, by his Freezing Mixture, which will produce ice in one minute in the hottest climate.

Every description of APPARATUS for PRODUCING ICE ARTIFICIALLY.

Also, by Royal Letters Patent,

MASTERS & CO.'S PATENT ROTARY BUFF KNIFE-CLEANING MACHINE, £2 2s. and upwards,

Which will clean and polish, equal to new, 12 knives in one minute, without noise or dust.

Descriptive particulars and engravings, with upwards of 700 testimonials, forwarded on application to MASTERS & CO., 333, Oxford-street, Regent-circus, and his Depôt adjoining the Polytechnic; also, at 7, Mansion-house-place, City.

THE TEETH—DENTAL SURGERY.—Mr. GAVIN, SURGEON DENTIST, 33, SOUTHAMPTON-STREET, STRAND, begs to call the attention of his patients and the public generally to his recent important improvements in ARTIFICIAL TEETH, and to his perfect and painless system of fixing them in the mouth, by which successful and scientific principle the removal of roots, or any painful operation whatever, is entirely obviated. Old pieces of teeth, or misfits remodelled and adapted to the mouth with security and comfort. Mr. Gavin begs also to state, that, notwithstanding his late invaluable improvements in dental science, he still insures the same moderate charges and successful treatment which have procured him such extensive patronage.—A single tooth ..... from £0 5 0
A complete set 5 0 0
Cleaning and removing the tartar from the teeth 0 5 0
Stopping carious teeth with a cement which does not discolour .. 0 2 6
Consultation free.—No. 33, SOUTHAMPTON-STREET, STRAND, opposite the *Atlas* newspaper office.

Original Correspondence.

THE CREBOR COPPER MINE.

SIR,—Will you allow me a short space in your interesting columns, to express my views on the report, plans, and sections of the above mine? Mr. Arthur Dean is unknown to me; I was not aware until of late that we had such a man in our mining field; but I admire the way in which he has brought out this mine—there appears to be something plain, straightforward, and honest about it; his plans and sections are such as any man conversant with mining can understand; it gives the lodes and beds of strata, with their dip and direction, so clear as to enable any one to form his own views as to their future prospects; a man not conversant with mining can show it to a friend that is so, and take his views, without incurring further expense. It is just in this way I expected Mr. Murchison would have laid Wheal Maria before the public, accompanied with full explanations. A particular friend of mine, a few months since, was about to get up a party to put on an old mine in Devon, and sent me his prospectus, showing the parallelism of lodes in his sett. I sent him sketches drawn in this way, and asked him to furnish me with correct ones, showing the dip of lodes, cross lodes, and strata, precisely as Mr. Dean has given the Crebor sett—on his doing so I would have given him my opinion as to whether these parallel lodes would prove productive or not; this appeared to so paralyse him, that he did not even answer my letter; but I venture to predict that the day is fast approaching (as remarked in the Journal) when the words "kindly" and "promising" must be eradicated from mining reports, if they be not accompanied with a description of some of the earth's natural laws that will produce the anticipated result. Mr. Dean's plan and sections of the strata, has so clearly shown their effect on the lode, as to convince any practical man who has emerged above the level of a dupe, that the component parts of the dark and light strata are not the same, and have quite a contrary effect on the lode. I think this sufficient to convince some who have of late attempted to figure in your Journal, that strata with their salts have a most material effect on lodes, leaving the depth as to where they will make *ore* or *slate* to natural circumstances, and occurring where congenial lodes and strata form junctions. I know Crebor Mine, and believe it to be a fair speculation, but do not remember as to the longitudinal dip of the beds or cleavages; nearly all the strata have also a longitudinal dip, which brings their salts into the lodes from one side, and I should think Mr. Dean quite right when he recommends the opening and exploring the north lode.

The reader will observe that there are here four lodes, very near each other, but it is the north lode that made the ore in each place; there is also a long distance from this to the next lode, and it is clear to me that this lode took the drainage of the north strata and robbed the south one. I have seen instances of close parallel lodes, as these, making ore, but in most cases it is from the strong mineral solutions carried from the rich lode to the others by cross lodes or deep junctions, and the water passes up through these lodes, which may be the case here, but I believe the lode that first formed the ore became glutted before much was formed in the others. Should this north lode be a single one, with no others near, and the strata the same as at Crebor, I should judge this to be a good speculation; if there are other lodes near on the north of it, I should first open on the northern one, as I am led to believe, on looking over this plan, and Mr. Murchison's of Wheal Maria, that the ore is produced from the drainage of the strata meeting the lodes from the north.

It is quite correct that it is plans and sections of this description that we want, to enable us to discover some of the earth's natural laws, and, if found inconvenient for your Journal, let parties place correct ones on their prospectuses. Mr. Hopkins's work on *Terrestrial Magnetism* will give the practical miner a great insight on these subjects, and particularly so when assisted by its author, Mr. Dean, Mr. Murray, Mr. Murchison, and other scientific men, who have of late entered the field.

In conclusion, I beg to offer Mr. Dean my sincere thanks for presenting this mine so clearly before your readers, and hope others who bring out mines, with a view of working them, will follow his example.

Dulverton, June 12. N. ENNOR.

P.S.—It appears very clear that the strata brought strong mineral salts into this lode, about the centre of the bunches of ore, that met the gases of the lode, and causing chemical action to take place, formed ore. When it took root, it gradually progressed on for a season, like every other thing, electricity and affinity aiding the chemical action. Some will be ready to say that the cross-courses produced the ore; if so, why is it not found to go down by the cross lodes. When the water is drawn out, Mr. Dean will find a strong mineral corrosion oozing out from the strata about where these bunches of ores were, which is not to be seen coming from the strata about the poor parts of the lode. I would equally as soon explore the iron lodes on Exmoor, in search of copper, as I would many of the lodes I saw tried, where the strata does not produce strong mineral salts. N. E.

THE MANAGEMENT OF MINES.

SIR,—I have perused the correspondence between "Matthew Mundic" and Mr. Bodkin, and contend that they are both in the wrong—that no one should censure every individual in a class because they have been dissatisfied with the conduct of a few; nor do I think the "stupid fools of captains," as he is pleased to call them, are to blame. Any man will accept a better situation than the one he is in, if offered to him; and if the directors of a company are foolish enough to engage an agent without taking any trouble to ascertain his abilities and fitness to manage a mine, they are themselves only to blame. There should be, on the part of the agents, a readiness of comprehension, and nicety in discrimination, joined to strict integrity, to prevent those abuses, and avoid those blunders which, in former days, were too common; and it is gratifying to know that, in most of the large mines in Cornwall, the greatest precautions are taken to prevent abuses of every kind, and I know mines which have been working 20, 30, and 40 years, without the slightest fraud ever having been discovered, which may be accounted for in the cautious manner in which agents are appointed. Instead of appointing a captain on an account day, without inquiry, when one is required, general inquiries are made by the manager, who seeks out a man whose character as an honest, industrious, and practical miner will bear a thorough investigation; while the pursers have been appointed from their known respectability and integrity. If, therefore, Mr. Bodkin does not complain without cause, either himself, or the directors he is associated with, have engaged incompetent men, who have been made agents through interest, who, in the duck jacket, fancy they have obtained a knowledge of mining, which a life can only bestow, and whose only marked characteristics are conceit and extravagance. If agency was only to be gained by real merit, there would be little room to complain of inefficient agents, or fraudulent proceedings.

Moreton Hampstead, June 12. JOHN PENROSE.

MODERN FALLACIES—"NO CALLS! NO LIABILITIES!"

SIR,—My attention has been drawn to a letter in your paper signed "Mathew Mundic," as evidently intended to be an attack upon, and to prevent the sale of shares in all mines professing to be worked upon the system of "no calls" and "no liabilities." I am the sole proprietor of Wheal Samson Consols. I have recently advertised in your paper a prospectus, offering a portion of such mine for sale, under the guarantee that there shall be "no calls," "no liabilities," and, consequently, "no forfeiture of shares." Your correspondent, "Matthew Mundic," has published a statement with the avowed intention of preventing persons from purchasing shares in mines conducted on such principles; levelling his unjust remarks, and charging fraudulent intentions upon all parties bringing forward mining adventures upon principles which he unhesitatingly denounces "the latest modern piece of deception to entrap the unwary." I, as unhesitatingly declare to "Mr. Matthew Mundic" (be he whom he may), that his letter proclaims him to be a compound of both knave and fool; that there is nothing therein contained which manifest honesty or truth, except it be the cognomen which he has selected; in that selection of title I give him the full credit of having attained proficiency in that most difficult science—the knowledge of himself. "Matthew Mundic" assumes his own most apposite title. I congratulate him upon its being perfectly appropriate to the object of his letter. I have not the slightest doubt the base scum which the more precious and more deeply-seated metals throw off in their process of formation, and which your worthy correspondent has been pleased to assume as his cognomen, is a most perfect exponent of the qualities of the man. It is an ingredient from which you cannot profitable extract any genuine metal, but it abounds in poisonous qualities of the most deadly nature. I believe your correspondent to be truly "mundic;" I believe him to be devoid of any one particle of sterling merit, and I challenge him to the test; first, by requiring that he should have metal enough to declare his name, as every honest man ought to be ready to do, when he comes forward pretending to expose fallacies, and professing to spend his valuable time for the good of others, by preventing their being entrapped into connection with systems which he says "are based upon deception and fallacy, which are concocted by ignorant and scheming men, and which are intended to result in the inevitable ruin of those who are simple enough to repose confidence in their encouraging statements;" and, secondly, I require him to manifest the honesty of his intention by identifying the examples which he has been pleased to introduce in his letter of last Saturday, and whereby he proposes to forwarn the public. I believe the whole merit of such inventions are the result of the

fertile imagination of "Mr. Mundic;" but, if they be veritable events, frauds which have been absolutely perpetrated by other parties than himself, "Mr. Mundic," to obtain credence, should name the mines, should state "the concoctors" of the 30,000*l.* scheme, and thus afford their victims the opportunity of bringing such "concoctors" (or I should say, such swindlers) to their nearest criminal court, to suffer the penalties of the law, which would undoubtedly be inflicted upon all persons convicted of so offending.

It is not needful that I should enquire what other parties there are who may feel agrieved by the charges of intended fraud made by "Mr. Mundic," or against whom the general remarks of your worthy correspondent may be directed. "He has his own ends in view, and what to him are the feelings or the interests, or the property of the public," except as he can destroy them? His observations are sweeping, and avowedly directed against "every mine brought forward under the flattering system of no calls! no liabilities!" I issued my prospectus in your Journal under such title; immediately thereupon I was challenged by you to state the particulars of the Wheal Samson Mine, and its system, guaranteeing "no calls and no liabilities;" to such I responded, by giving you every particular; my letter appeared in your Journal of May 25, and such is now followed by the impudent attack, disguised under the fictitious signature of "Matthew Mundic," in your Journal of the 8th inst. After my letter of the 25th May, I could not have supposed the attack of "Mundic" to have been directed against the Wheal Samson Mine, had it not been so explained by the agent, and so considered by many parties who have directed my attention thereto.

I, therefore, now publicly challenge "Matthew Mundic" to come forth from his concealment, and declare, or deny, his intention, by including or separating the Wheal Samson in or from his sweeping charges of fraud, and to give his name. If he does not, and if you as a public journalist thus permit an envious and malicious individual to attempt to disturb and interrupt the establishment of the true and legitimate mining I propose in Wheal Samson, and to prevent the formation of that mining company on clear and honest principles, I give you the fullest warning that I will find a means of dragging "Matthew Mundic" from his den, and of placing him in a position where he will have the fullest scope for exhibiting his ability in exposing the deceptions against which he forewarns the public, or of being himself exposed as attempting to damage the property of others in a mining adventure, which is instrinsically too valuable, and which is based upon principles too honest and judicious, to receive commendation from, or to suit the purpose of one who has nothing better than "mundic" in his composition; and whose system of working (if, indeed, he ever had anything to do with genuine mining property) only lead him to become acquainted with the "mundic" of the lode, but would never put him free from liabilities—those dearly loved liabilities, without which, he says, no mining can be honourably conducted!

As you have obliged me, by the publication of "Matthew Mundic's" attack, once more to take up the defence of the principle of working mines "without calls or liabilities," I shall, without apology, enter into an explanation of the systems of working mines under the "old system" of calls and liabilities, and the proposed system of working the Wheal Samson Mine without the possibility of either; and I shall invite the public to a calm consideration of the merits of the two systems, to which exposition "Matthew Mundic" is also invited to give his attention, whenever it may be possible for him to divest himself of the arsenical portions of his constitution, and, thus, to render himself admissible to communion with parties having no desire to become the recipients of such dangerous and destructive ingredients. It is well known that the rottenness of the constitution of mining companies, as compared with other business firms, the causes of litigation between adventurer and adventurer, and also between adventurer and mine creditors, are all traceable to the fact that 9-10ths of mining adventures are taken up and prosecuted without the slightest regard to, or original provision for, that which must manifestly be the necessary expenditure, and that which could be the estimated cost of putting the mine in a paying position. In mines where it is evident that 10,000*l.* or 20,000*l.* must be expended, men, perfectly unknown to each other, take up shares, many of whom have not the means of paying the first call that must of necessity be made; operations are commenced upon the mine, machinery and goods are ordered, debts and liabilities are incurred; calls are then made to pay off such liabilities, they are not respondent to, the paying adventurers then forfeit the shares of their co-partners, the mine commences operations in a state of insolvency, the company intend instantly to create debt, and they have no capital to liquidate the same, and thus originate the series of difficulties which "cast an odium upon legitimate mining, which deters capitalists from investing therein," and which have brought mining into such disrepute that persons are terrified at the bare mention of its advantages; but the truthful display of its profitableness, under honest management, should induce them to embark in mines where the unforseen calls would lead them on either to absolute ruin, or to the forfeiture of shares, which they have supported from time to time by calls, every one of which they were hopeful, and were often assured, would be the last.

In such mining schemes individuals like "Matthew Mundic" do yet find their advantage. They are in arms when they find a remedy proposed; they are the pet schemes of such "Matthew Mundics" as declare "mining honourably conducted cannot be free from liability," and who publicly denounce any proposal to place mining in the position of other mercantile establishments—viz.: to commence operations with a sufficient capital for the known requirements of your business—"an impossition and a fallacy."

Now, Sir, this assertion, coming from "Matthew Mundic," I unhesitatingly state to be fraudulent in intention and mischievous. Mining can be conducted without calls and without liabilities. It is only needful that a sufficiently careful examination should be made of all the circumstances that constitute the necessity of outlay or cost upon the mine; that experienced, prudent, and honest parties, should make an estimate of the needful expenditure; and that an ample, and even a surplus, capital, should be subscribed prior to the contracting of any debts, and the object is accomplished.

I do not take up the cudgels for other parties proposing this system. I only answer for the constitution of the Wheal Samson Mine, and for its capability, its plan, and the integrity of its intentions. I have conducted certain operations upon that mine. They have been conducive to certain discoveries as to the qualities of the lode, and as to the cost at which the necessary operations can be completed. I estimate the value of the discoveries at a certain amount. For such previous outlay and discoveries, I take a certain portion of the shares, and I place a certain other portion of the shares for sale in the market at a fixed price. The whole sum derived from such sale is to be placed in the hands of the bankers, capable only of being withdrawn for the working of the mine by cheques, signed at the general meetings of the shareholders, and by such trustees as the shareholders shall appoint to have the custody of the funds so provided. The most careful estimates make the necessary capital for putting the mine into full operation not to exceed 1200*l.*; but, in order to have abundance of capital, I place 5000 shares in the market to produce 5000*l.*, and not one farthing is to be deducted from such sum for any preliminary expenses, or for agencies of any kind—all such being fully paid or satisfied by me. We have no "committee of management, nor finance committee," to control the operations; the shareholders meet every alternate month; they decide on the operations for the two ensuing months; an estimate is made of the cost; the money is drawn from the bankers and placed in the hands of the purser, to be used in paying cash for all goods, materials, and wages of labourers; the purser is required to produce vouchers at every two-monthly meeting, to show that every cost is paid; and thus every shareholder has the means of satisfying himself that he has no liability, that no debts are incurred upon the mine, and that no calls will be needful.

These are the conditions upon which Wheal Samson Consols is now brought before the public. When operations are resumed at that mine it will be with a sufficiency of capital to do everything that may be needful for putting the mine in a paying position. The mine is most favourably situated for establishing such a principle. The lode develops itself, as regards form and quality, in a most extraordinary and positive manner; the operations are so simplified and asserted by the nature of the ground, that they can be defined in the outset, and must be of a most inexpensive character. I am ready to lay my arrangements open to the most severe scrutiny; even "Matthew Mundic" is invited to inspect them, if he has the ability to understand that which is intrinsically good, or can appreciate an attempt to conduct mining upon a principle both honest and feasible. I have no doubt but the public will be able to distinguish between "attempted fraud" and a desire to set out with a system, at any rate, materially reducing the speculative portion of mining adventure, and that I shall find that "Matthew Mundic's" pet system of unanticipated liabilities and calls will gradually give place to such a better system as shall remove the odium from mining operations, the which long existing and proverbial censure evidently is of no recent date, and as evidently is not brought in with the latest or most modern piece of mining economy of no calls and no liabilities; and I have no doubt that such plan well and generally carried out will yet encourage capitalists to invest their moneys in the production of those mineral riches upon which our manufactories so materially depend, and which form so large a portion of the wealth of our dominions.

In conclusion, and in order that nothing equivocal may appear as to my intentions, I declare my readiness to discuss the merits of the system with "Matthew Mundic;" but if he makes unfounded charges of fraud and deception (however they may be disguised by innuendos, and fictitious tales), I shall take the means of bringing him to his senses, and obliging him to adopt a course of honesty.—FREDERICK S. THOMAS: *June* 14.

[For remainder of "Original Correspondence," see page 286.]

MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

TAVISTOCK DISTRICT.—Several of the mines in this district are looking remarkably well. Wheal Crebor is set to work vigorously. I understand that Capt. Doble has been instructed to proceed with as much speed as possible to clear up Gill and Rundle shafts to the adit (the latter 50 fms. from surface), and Cock shaft to the 24 fm. level under the adit, from all of which I believe crosscuts are to be driven to the parallel lodes. The water-wheel works well, and so do the pumps in Cock shaft. The lode at Heigneton Downs continues equally promising, with good stones of ore. It is believed that the works at Wheal Anderton will be carried on.

GREAT VAUX TOR MINE (CORNWALL.)—This mine is situated in the parish of Alturnum, about one mile south of Five Lanes, and is held under a lease of 21 years, at a royalty of 1-15th dues. The sett is a very extensive one, nearly one mile in length, on the course of the lode, which runs east and west, and of great width; the lode will average 2 ft. wide, dipping south 2 ft. in a fathom, with two well-defined walls, and is composed of quartz, prian, and large grained tin, free from mundic, in the middle of a beautiful stratum of granite, between a compact and decomposed state—being the medium point where mineral is more frequently found. These workings were commenced about 15 months since, from which several lots of tin have been sold—the last at the rate of 56*l.* per ton. The mine has been lately inspected by an eminent miner, who thus concludes his report:—"I can with confidence recommend this mine as something more than a fair speculation, believing, if it is worked in a proper manner, that a realisation of profits would be the result."

WHEAL FRANCO.—This company have lately obtained an addition of the adjoining Wheal Massey sett, and they are now in full work, making a new floor. Sir Ralph Lopes, in order to promote the mine has, in the most liberal manner, reduced the dues to 1-20th; and I congratulate my brother shareholders on the prospects of again receiving regular dividends, having sampled upwards of 110 tons of ore last month. The mine is situate on the high road between Plymouth and Tavistock. Capt. J. Lean, the manager, I am happy to state, seems most attentive, and willing to give every information connected with the working, progress, and successful development of this undertaking.

MINING NEAR TAVISTOCK.—From present appearances, I have every reason to suppose that this neighbourhood will soon rival the mining district of the west. I am given to understand that certain difficulties have been overcome with the proprietors of a valuable sett, near the Devon Great Consols, and that some gentlemen of high standing in the mining world are now actively engaged in forming a company to work the same in a spirited manner. Several copper lodes, I hear, are known to exist in the sett; and hopes are entertained that mineral will be discovered at no great depth. I wish them every success in the undertaking; and trust the concern may prove as productive as her wealthy neighbour—the Devon Great Consols.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—Field's engine-shaft is sunk 9 ft. under the 70 fm. level, lode in the present bottom of shaft from 3 to 5 ft. wide, and for the last 2 ft. sinking the lode contains less mundic and a little more copper ore. The lode in the 70 fm. level, east of said shaft, is from 3 to 4 ft. wide, worth from 50*l.* to60*l.* per fm. The driving of the 60 fm. level west is suspended for the present. In driving south, in the 60 fm. level east, we have not yet seen the south wall, but have cut two branches of soft spar, which is very kindly. I am glad to inform you that the winze is communicated to the 70 fm. level now the ventilation is good. There is no change to notice in any of our tutwork operations since my last report. At our setting, on Saturday last, the piece of ground over the 70 fm. level, from engine-shaft east to winze, was set to four men at 11*d.* in 1*l.*, and a pitch over the 60 fm. level east, to six men, at 1*s.* 9*d.* in 20*s.*; also a winze to sink under the 60 fm. level east, to be carried 9 ft. long, by six men, at 1*s.* 9*d.* in 1*l.* The first tribute pitch that was set over the 60 fm. level is still working by four men at 4*s.* in 1*l.* You may see by this our pitches are looking well.

BARRISTOWN.—The lode in the 30 fm. level end east is poor, principally composed of blende, containing little lead through it, the walls very regular, and taking the same course. The men in the bottom of the winze are still employed in cutting in, to prove the east and west lode at that depth. The cross-cut in the 40 fm. level is without alteration. The rise over the 26 fm. level during the week has produced good stones of lead, about 3 in. wide; but, as the lode is near a slide, it is irregular. The cross-cut south from the 18 fm. level is favourable for driving.

BIRCH TOR AND VITIFER.—The old engine-shaft is 10 fms. below the 8 fm. level, the lode has improved in the last 2 fms. We are clearing the adit level west of this shaft. The lode in Dunstan's shaft is 15 in. wide, and is producing good work. In the 20, west of this shaft, the lode is still small, but is producing good work; the stopes in the back of this level are looking better. We have let the cross-cut north of the Birch Tor lode to-day, at 7*l.* 10*s.* per fm. We are not without hope of seeing better days at Birch Tor.

BRYN-ARIAN.—The engine-shaft is now down 11 fms. below the 10 fm. level; we are through the slide, and have several branches of spar, with specks of ore, which appear to be forming into the lode. The 10 fm. level east continues the same as last reported—a large and promising lode, but not much ore; the same level west is in a large grey lode, yielding about 12 cwts. of ore per fathom. The stope under the adit level, east of the shaft, is still yielding about 12 cwts. of ore per fm.; the stope under the same level, west of the shaft, will produce 1½ ton of ore per fathom.

BRYNTAIL.—This mine is situated about four miles north-west of Llanidloes; it is bounded on the west by the Garr Mine and River Clewedog, and on the east by Pen-y-clean Mines, all of which are now being worked on the same lode. The lode in Bryntail sett runs on the south side of Bryntail Hill, the underlay being also south. It is worked by means of an adit level, which has been driven on the soft, or south part of the lode, for upwards of half a mile in length, with backs of 50 fms. We have proved the lode to be 10 ft. wide; but two cross-cuts have been driven north in the whole distance, and upon this part great quantities of ore can be returned monthly at a light cost, without sinking below the adit level for a length of time; but the main body of ore seems to be going below the level; this was Mr. Evan Hopkins's opinion also when underground. On considering but two cross-cuts have been driven from the old level to the north part, the prospects of the mine must be considered very promising; it is but 70 fms. from the mouth of the adit, where we are now raising good ore; in securing the old level eastward we shall require timber, &c., but the cost will not be high. We have discovered good orey ground before us in the level, and as soon as it is cleared, and rails put in, we shall put 10 men on a stope by the end of this month. There is another important thing to which much attention should be drawn. On the eastern part of our sett is the Pen-y-clean Mine, which has only been discovered about four years, and have returned profits to the extent of nearly 18,000*l.* by hand labour, not having any machinery except jigging hutches, &c. Their levels and workings are wrought close to their boundary and adjoining ours. We have a level driving from the side of the hill, and will cut the lode at a depth of 10 to 15 fms.; should we have as good a one as in Pen-y-clean, as we have every reason to expect, our profits will be equal to theirs. Our machinery is working well, and almost complete. We have erected a 25-feet 5-feet breast water-wheel, and a crusher, capable of returning 100 tons per month. We have an excellent stream of water all the year round.

CARTHEW CONSOLS.—The lode in the 75 fm. level end north shows much as it has hitherto, yielding good stones of lead and copper; in the south end, in this level, the lode and slide are now fast diverging from each other, and the former holds out a good prospect for mineral. In the end, in the 65 fm. level north, we have ever since my last been driving through very good ore ground, principally lead; in the south end, we have a promising lode, embodied in fine strata of ground, very congenial for ore. The winze in the bottom of the 48 fm. level is laying open very good ore ground, which will shortly give room for two valuable tribute pitches. The tribute department looks very well.

DEVON AND COURTENAY CONSOLS.—The 50 fm. end is much the same as last reported, and so is the engine-shaft. At the east side of the shaft we have sunk through the lode, and in sinking about 3 ft. more we shall have the lode altogether, and shall have to wait its being cut in the 60 fm. level, where, after cross-cutting, we shall have to drive on it 6 or 7 fms. east before we reach the cross-course, on which cross-course we shall then have to drive to cut the south lode, which we shall open to prove the lode under the ore driven through in the 40 fm. level. There is no alteration in any other part to notice.

DYFNGWM.—In the 32 fm. level nothing worthy of remark has been done since setting day, the water being in, and the shaftmen, with the end men, engaged in putting down a new lift of pumps from the 16 to the 32 fm. level. [illegible] thereto connected, as clacks, bearers, steps, rods, &c. [illegible] 24 fm. level. Davis's stopes are just the same as when last reported on. In the winze under these stopes the men have been engaged during the week in shooting down the north part of the lode, which is very large, and still carrying with it a great quantity of blende and copper ore, with good patches of lead ore throughout the whole mass; I call it a mass, because the lode is large and disordered. In the winze under Tudor's stopes the lode is producing some good lead ore; but, as in the other, is not regular and compact, being mixed up with blende and copper ore. In the rise against the sink steel ore no improvement has taken place during the past week; but I am glad to find that the men are getting on well with their work. We have been clearing the large heap of stuff in the adit level east of sink steel ore, in order to take up the water, which has for some time been going down into sink steel ore; and now, having this level clear, we intend getting the walls out from below the 16 fm. level as fast as possible. In Castle adit, the stope in the back is producing some good ore, but is not rich.

The following report has also been received:—

In writing this report, it affords me much pleasure to inform you that an improvement in one of our stopes, and in the eastern winze, has recently taken place; and, from present appearances, in the winze west of the engine-shaft (although the ground is at present very hard) I anticipate favourable results at a deeper level. We have this day, June the 1st, set a plat to cut in the 32 fm. level, and our shaftmen are at present busily engaged in fixing the new lift of pumps, from the 16 to the 32 fm. level. I shall keep in view your recommendation of going into the deep, and shall lose no time in getting the above work completed—viz., cutting plat, &c., preparatory to sinking on to a 42 fm. level. We have driven and sunk this month 26 fms. of ground; in some parts of the mine (as you will see by the accompanying setting list) the lode has been productive, while in other parts we have experienced a falling off in the prospects; however, we look forward with a degree of confidence to see our hopes and expectations realized in the deeper levels, and in sinking at the Castle. There is evidently, in the eastern part of the mine, and at the western extremity of the sett, more congenial strata for lead than in the central part; consequently, I should recommend, as soon as it is convenient, the sinking of the whim-shaft under the Castle deep adit, on the course of the lode, to a 20 fm. level, and drive west at that point to intersect or get below the old men's workings. I have recently been creditably informed that this part of the mine returned great quantities of lead in days gone by, and would probably do so at the present time, provided that suitable machinery was erected for pumping, drawing, &c. The new smiths' shop which we thought of building immediately, I have not as yet set, and intend leaving it until such time as that our pit work, and other works of far greater importance, are completed. We have five months' stock of timber on the mine, and are well supplied with all other necessary materials; consequently, I shall now be in a position of reducing the monthly expenditure. We have also greatly reduced our monthly expenses at the dressing department, having only one man to superintend the whole. We hope that the weather in June will prove more favourable than it has hitherto been, and that we shall have a good supply of water throughout the summer months for all necessary purposes. I wrote you some time since relative to the making of a reservoir that would contain one month's supply of water. The property belongs to four land owners, and one of them has a mine situated near the water-course. I have, after minutely examining all the leats, their rise, &c., and the extent of their sett, come to a conclusion that it will be much better for us to build a large pond above the Castle; certainly, we could then command the water at any time, with pleasure, and prevent any unpleasant feelings with our neighbours. I estimate that the expenses in building, timber, lime, stone, and other necessary materials, will not exceed 50*l.* sterling. As soon as I receive an answer from you, confirming my views on this subject, and your consent, I will lose no time in getting the proposed works carried into execution.

EAST CROWNDALE.—In driving east of the middle shaft, in the 40 fm. level, we have discovered a good bunch of tin; it is taken down for about 1 ft. wide, but cannot state the full size as yet, not having seen the north wall—I have this day directed the men to cut north to ascertain its width. There appears to be more lode north, judging from the great quantity of water coming from that direction. Should this lode continue good, I purpose to drive west also in the same level, and not the intermediate one, as proposed in a former report. The cross-cut at Harris's shaft will be communicated in a day or two. No alteration to notice in our tribute department this week.

EAST TRESCOLL.—Our experimental shaft is being sunk on the same lode as where they are raising such an abundance of rich tin in the adjoining mine, Wheal Trescoll; all their rich lodes are running direct into our sett, and only a few fms. from our boundary. We have at present no water in the shaft, which must be accounted for by their large engine draining the lodes, which it evidently does, a long distance. A few days since a fine lode, producing very excellent tin, was cut in the valley by the streamers; the lodes are very numerous, and when we are down 25 fms. a large quantity of tin will be returned, as the size and quality of the lodes are known. The engine now under repair at Mr. Marz's Foundry, Plymouth, and the new boiler, will be ready for delivery in about a fortnight, when it will be immediately erected on the mine, and the work prosecuted with greater speed.

EAST WHEAL GEORGE.—The engine-shaft is now down 7 fms. under adit, leaving 3 fms. more to sink, so as to complete the lift. In blasting a hole on Thursday, the 6th inst., the doorpiece unfortunately broke, which hindered the men from working until Saturday morning, when they resumed their work, with every hope of completing their bargain by the appointed time (the 24th inst.) The carpenters are employed in staying launders, cutting timber in the wood, &c. I am sorry to say that an accident occurred on Thursday last, one of the men employed having been thrown from the capstan; he is not, however, dangerously hurt, although severely bruised.

ESGAIR LLEE.—I have much reason to think this report is looked for with much anxiety, as in my last I informed you that we had that day cut into a promising lode in the deep adit, west of the junction, but was not through it. I have now to inform you that it is both a promising and productive lode, the orey part being from 20 in. to 2 ft. wide, and will yield from 15 to 20 cwts. of ore per fm.: this I consider a most material improvement in this concern. The caunter lode, in Harding's winze, below the mouth of the shallow adit, now down 2 fms., is improved since my last, the orey part then being 6 in., is now from 20 in. to 2 ft. wide, and has a very promising appearance. The caunter lode in Owen's winze, in the 12 fm. level east, and in the stopes in the bottom of the shallow adit, west of Morgan's winze, is much the same as when last reported. During my absence in town, I am happy to say, they were very successful in the erection of the machinery, &c., which will, I think, be completed by the time I promised. We have resumed the repairs of the large buildings at Steddfa, and I think, in the course of four or six weeks, the agent's and account house will be tenantable; and I am happy to inform you the other parts of these most desirable premises may be converted into five good dwelling houses, a plan of which I will hand you in the course of the week.

HERODSFOOT.—The south part of the mine is very much improved. The 72 end south is now worth 12 cwts. of lead ore per fm., and is still improving. The 82 end is averaged at 25 cwts.—at times it is worth from 35 to 40 cwts. This end is further south than any other, and much increases our prospects at Boase's shaft. The 94 will, I believe, be equally good, when the main part of the lode is cut; and the 106 is getting under the same ore ground also. The north part of the mine is without any material alteration. I have carried over the water-course that runs through the centre of the dressing-floors, by which they are greatly enlarged, and made much more convenient and economical. The steam whim-engine is now made to draw all the work from both shafts, so that the water-wheel is entirely appropriated to stamping, and works well. We purpose sampling about the 19th inst.; the quantity will be about 80 tons.

HOLMBUSH.—We have got through the small cross-course in the 152 fm. level, west of the diagonal shaft, which has completely drained the pitch over it. The ground in the 120 fm. level cross-cut south, towards the flap-jack lode, is favourable; the lode in the same level south is full 6 ft. wide, composed of soft quarts, prian, and stones of lead (opening ground that will set at a moderate tribute). The lode in the 110 fm. level south is 18 in. wide, composed of spar, soft killas, and spots of lead. The flap-jack lode, in the 100 fm. level, east of the great cross-course, is 2 ft. wide, composed of spar, mundic, and stones of copper ore. The pitches in the back of this level are still productive, and if there is any difference in the tribute department, generally speaking, throughout the mine, it is for the best.

KESWICK.—At Brandley, the 10 fm. level rise is yielding very good ore. The sump in Salt level is looking well. At the cross-cut, in Salt level, we have good ore. We have a bunch cut here during the past week that looks like holding on; we have it in places 6 in. wide, of solid ore. At Thornthwaite, the sump on string is about the same as last reported. The cross-cut in the 17 fm. level is poor; we intend stoping here next week. The 17 fm. level forehead looks most promising. The ground in the bottom level continues to improve.

KIRKCUDBRIGHTSHIRE.—The lode in the 62 end west is much the same, from 4 to 5 ft. wide, with good stones of ore through it, worth about 7 cwts. of lead to the fm. The lode is 3 ft. wide in the east rise, worth 6 cwts. of lead per fm. In rising against the new shaft the lode is very large, with good stones of ore through it. The lode in the 50 end west is 8 ft. wide, but still unproductive. We have shipped another cargo of lead ore this week for the Holywell market.

LAMHEROOE.—The agent reports that the lode in the 60 fathom level is bringing to surface and getting ready as fast as possible for stamping. The building of the kiln for roasting is commenced, and all the underground operations, by 36 men, are going on favourably. The following particulars of another assay of the ore will prove interesting:—

St. Neot, near Liskeard, June 12.—Assay of Lamheroce tin, by James Nance, assayer to the West Caradon, and other mines in the Caradon district:—The store of tin stuff from Lamheroce Mine, the product of 20 cwts. of stuff per assay, 4 cwts. 3 qrs. 14 lbs., at 41*s.*, 9*l.* 19*s.* 10*d.*; returning charges per ton, 12*s.* 6*d.*, leaving 9*l.* 7*s.* 4*d.*

Mr. Crouch informs me you have had several assays made of the Lamheroce tin stuff, which vary very considerably in their results; cannot this be accounted for by taking selected stones, differing so much in quality as to be impossible to come to the same results? I would advise you to have a quantity of the stuff spalled down to the size for stamps, and have samples taken from the mixture; then you will find that the different assayers will be able to give you pretty correct and corresponding assays.

NORTH BULLER.—Hitherto there has been but little of interest to report, our working being entirely of a preliminary nature; at surface, in the erection of the necessary shops, making of a road, &c.; underground, in sinking our shafts, to prove the lodes. My own opinion of this ground was concurred in by many of our most talented miners in the county, that we certainly should have a rich mine, and I am happy to say miners in the county, that we certainly should have a rich mine, and I am happy to say that the appearances in our progress in sinking fully confirms that opinion. For the first few fathoms sinking, both on King's lode and Louisa lode, we found indications of tin few fathoms sinking, both on King's lode and Louisa lode, we found indications of tin lodes, but on getting deeper we find them to be well-defined copper lodes, and our captain believes we are, on King's lode, within a few fathoms of something very good; there are small branches containing good stones of copper ore running by the side of the lode, and inclining towards it, and when these unite there is every reason to believe we shall find a good deposit of copper ore; indeed, I feel that I may go so far as to say that there is no longer a doubt, from the unmistakeable appearances now presenting themselves, that we shall have a fine mine; of course, there are casualties in mining which render it impossible to speak, with certainty, as to a few fathoms, more or less, in depth at which our success will be insured, but, certainly, the only question is this uncertainty of a few fms. I beg to assure you our men are as sanguine and as zealous as we can be ourselves, which is evinced in the hearty good will with which they stick to their work.

PENZANCE CONSOLS.—Since last report we have been stoping down ground under the 18 fm. level, and am glad to say that there is a good lode of tin going down; and, according to the present prospects, we shall raise a large quantity of tin in about two months from this time. The north lode is still looking exceedingly well; we have 13 men on tribute working on this lode, and we expect shortly to have a great deal of ground opened, so that we shall be enabled to increase the number of men on this lode. The 16 fm. level, driving west, has a very kindly appearance, and we are anxiously expecting to cut Elisha lode, which has hitherto proved very productive in ancient times; should this lode, when cut, prove according to expectations, it will greatly enhance the value of the mine, and shares will, no doubt, go very high; on the whole, I firmly believe our prospects are as good as they have ever been.

ROCHE ROCK.—The 50-inch cylinder steam-engine and boiler, together with the powerful capstan, which you purchased of the Charlestown United Mines adventurers for this mine, is cheap, and the engine I am quite sure, is of sufficient power to [illegible] this mine on effectual terms, and also to lift sufficient water for stamping. We have let the building of the engine-house, boiler-house, and stack, at 1*s.* 10*d.* per perch, the raising and carriage of the stone at 2*s.* 3*d.* per perch, and the excavating for the foundation at 1*s.* 8*d.* per solid fathom. I have been at the mine to-day, and the men have commenced raising the stone, and excavating for the foundation, and no time shall be lost in getting on with the erection of the engine. I have made a rough estimate of the expense of erecting the machinery, sinking the shaft as deep as the 20 fm. level, cutting the lodes at the 10 and 20 fm. levels, and putting the mine into an efficient and profitable state of working, and find it will require from 2500*l.* to 3700*l.* The prospects of the lodes opened upon, on the backs, fairly warrant this outlay; it should be borne in mind that the rich stream works below were, no doubt, fed by the tin lodes in this sett, and there appears every reasonable ground for presuming that they will be found to be productive in depth.

ROSELYON.—Having, in accordance with your request, inspected the mining operations now being carried on in your property, both in West Fowey Consols and the north part of Par Consols, it affords me great pleasure in being able to furnish you with so flattering a report of the prospects of these mines:—

North Part of Par Consols.—The 60 fm. level, east on Fucky's lode, has been driven several fathoms through your property, but, owing to a change in its course, it is now in the adjoining lands; but, from what can now be seen, it will again be in your property in extending this level about 3 fms., and I believe it will then be found to continue in your lands at this level to the eastern boundary of your property. The 70 fm. level, driving east on this lode, is now very near your property, and at present is 10 ft. wide, all saving work. The 80 fm. level, driving east on the same lode, is already in your property about 4 fms., and the lode in this end is worth from 40*l.* to 50*l.* per fm. From the very productive character of this lode, so far as it has been explored below the surface, and the great extent that it runs through the estate of Roselyon, I have every reason to believe that the amount of dues from this lode alone will be very considerable. In an adit level, driving north, several large lodes of great promise have been intersected, and which, no doubt, will be found productive, when explored to a greater depth. A spirited system of working is now being adopted by the Par Consols adventurers, in that part of your lands which belongs to them; they have two large engine-shafts in course of sinking, one north of the other, and which will enable them to lay open and explore the lodes in this part of your property to a very considerable depth, and the indications presented fully warrant the great outlay that is now being made by them for that purpose.

West Fowey Consols.—The engine-shaft is in course of sinking, and is down 8 fathoms below the 60 fm. level, and it is expected that the 70 fm. level will be reached by the end of next month. A cross-cut is driving south in the 60 fm. level, to intersect the lode sunk on at Protection shaft, in the 30 fm. level, and about 30 fms. east of the shaft; from the productive character of the lode, so far as already explored, I fully expect that a large quantity of productive ground will be laid open between the 30 and 60 fm. levels on this lode. Different levels are in course of driving on the lodes north of this, and the indications presented are such as to justify the expectation that this mine, as well as her neighbour, will make a profitable and lasting concern, both for the lord and the adventurers. —SAMUEL SECCOMBE.

SOUTH PLAIN WOOD.—Since my last report the mine is greatly improved. The caunter lode in the adit is 2 ft. wide, composed of mundic, gossan, peach, and quartz spar, with a leader of copper ore from 8 to 10 in. wide, of a superior quality. We have another caunter lode some few fathoms further south, carrying a leader of copper, jack, and mundic, about 12 in. wide. We have also shot a hole on Camplin's lode, and have fine stones of yellow and peacock ore of rich quality. We are still driving on the course of Nicholson's lode, which is from 4 to 5 ft. wide, composed of copper of good quality; and, from the appearances, I have every reason to believe this mine will make a profitable concern with a moderate outlay. We are sinking the engine-shaft, also getting on with the wheel-pit, and there are three other lodes further south equally as kindly as those I speak of.

SOUTH WALES MINES.—We have for the present suspended the 12 fm. level east of the cross-cut, on the south or Frongoch lode; the lode is large, composed principally of gossan, quartz, and slate, with a little copper and lead, but not sufficient to set a value on. The lode in the shaft, 100 fms. east of the old workings, is not looking so well as last reported, but has still a promising appearance, being 3 ft. wide, and producing some good saving work.

SOUTH WHEAL TRELAWNY.—The ground is still favourable in the engine-shaft, as well as sinking below the 50 fm. level, with six men—a deep blue strata of killas. We have during the last week been making a search for the lode south of the cross-cut, in the 50 fm. level, under the slide, but have not found it yet; we have some branches and strings of spar, mundic, and prian heads, but nothing like a lode yet; I think we must drive some distance further before we find it, as the slide is so close by. The lode north of the cross-cut of the same level is not so good as last mentioned, as it is mixed up with horses of killas; it is a large lode, 3 ft. wide, and very regular in its course, and the ground favourable.

TRELEIGH CONSOLS.—On Christoe's lode, in the 100 fm. level, west of Garden's shaft, no lode taken down this week. In the 90, west of ditto, the lode is 2 ft. wide, worth 20*l.* per fm. In the winze below the 80 fm. level, on the north part, the lode is 20 in. wide, worth 14*l.* per fm. In the rise above the 70, west of Garden's shaft, the lode is 3½ ft. wide, worth 14*l.* per fathom. In the winze below the 60 fm. level, the lode is 2½ ft. wide, worth 8*l.* per fm. The 52 fm. level cross-cut, north of Parent engine-shaft, is driving north to cut Parent lode. The 40 cross-cut, south of ditto, is driving to cut the middle lode; in the rise above the 40, east of ditto, the lode is 20 in. wide, with stones of ore. In the adit, east of Nicholson's lode, the middle lode is 20 in. wide, with good stones of ore, and is looking kindly.

TRESCOLL.—The course of tin that I mentioned last week being cut in the bottom level going east, is still improving; I may say it is very rich, but we have not as yet cut through the lode, as we have only cut into the leader part of it. We have driven 6 fms. by the side of it, and cut into it in several places, and find it equally the same. The course of tin on south B lode is lasting, still we are working up a piece of back on it, and find it very rich. We shall cut this lode in the bottom level in the course of a few days; as there is a great deal of water proceeding from the end, we are driving towards it, and hope to find it equally as good as we did in sinking below the 10 fm. level. Our back, east of flat-rod shaft, in the 10 fm. level, is turning out good work for tin. We shall dress and sell on Friday next, from two weeks' getting by eight heads of stamps, sufficient to pay many months' cost, and have the other two weeks' getting for profit; and I hope to do more next month, as we shall put our small stamps to work in the moors, as we are piling tinstuff very fast at grass, as well as underground. We must use every

effort to set our large stamps to work, and enlarge our floors for dressing, as we are full of stamps work, and the dressers cannot keep it under. Our machinery works well, and we have scarce any hindrances.

TREVILLE.—The caunter lode is much improved since last reported, being full 2 ft. wide, regular, well-defined, and nearly perpendicular, with more spar and mundic, with spots of lead, as before. We are obliged to stop one of the ends in the adit, as the air is very dead, and have, therefore, preferred to continue on the caunter, as it is making to hill faster than the main lode, and also because we shall drive under the main lode at a deeper level, as soon as the shaft is at a sufficient depth. The engine-shaft is down about 7 fms., with the ground very favourable for sinking; the water rather quick for barrels. Our wheel-pit is excavated ready for the masons, and we hope by next week to have the axle in. The leats are in rapid progress, and will be ready by the time the wheel is erected, which we hope will be by the 25th.

WELLINGTON.—The ground in the engine-shaft still continues hard—this shaft is sunk 7 fms. under the 42 fm. level. The lode in the 42 fm. level, east of Parcolly shaft, is 18 in. wide, and contains in the middle part a branch 6 in. wide, of mundic and copper ore—I hope this is a favourable indication; in the same level west the lode is from 6 to 8 in. wide, principally spar; Parcolly shaft will, I expect, be communicated to the 42 fm. level next week, lode poor. The lode in the 32 fm. level east of said shaft, is 18 in. wide, and is just at this time split in two parts, both containing a small quantity of copper ore. The ground in the cross-cut, north of north lode, in the adit level, is just as it has been for the last month. I cannot speak of any change east on north lode, in the adit level; in the same level west the lode is about 2 ft. wide, containing gossan, copper, tin, mundic, and spar—a very promising looking lode. I am glad to inform you that the new shaft was communicated to the adit level on the 31st May last, since which we have cut plat and commenced sinking under said level; and at our last setting we set two pitches over the adit level to four men at 3s. in it., and resumed the driving of the adit level west; the lode in said level is from 1 to 2 ft. wide, and the south part for nearly 1 ft. in width is thickly dredged with copper ore, much improved since the commencement of the driving—we are looking out daily for a great improvement at this point. We are driving the 10 fm. level, east of winze, referred to in my last report; this is east of the last-mentioned shafts, and the lode here is 15 in. wide, worth from 6l. to 8l. per fm.; this part of the mine is, I consider, very promising.

WEST POLOOTH.—Our excavations among the old workings hold out the same pleasing indications of the richness and productiveness of our lodes. We have sent a fine sample of tin this week to London, being the leader part of our main lode going east; we have cleared away now up as far as the elvan course, and the old men do not appear to have gone through it; we have, therefore, commenced driving a cross-cut, anticipating to meet the lode on the other side, as the heave appears to be only about 8 fms.—it is very probable we shall meet with a rich bunch of tin here. We have cut plat in engine-shaft, and are getting down our cistern. We have now got the engine on the mine, and commenced putting in the leadings. We expect the new boiler home about the middle of next week—the pitwork is in active progress. The new stamps will be commenced next week; our masons are engaged erecting the walls of the coal yard, the other buildings wait the arrival of the boiler. We are busy unloading the first cargo of coals at Pentuan, and getting them on the mine. We have also a small vessel laden with slate, which is also being unloaded. We find the water under adit will be less than we have been led to suppose; the springs are now going back, so we shall have but little difficulty in getting to the bottom of the mine.

WEST WHEAL JEWEL.—The 85 fathom level, west of Williams's cross-course, on Wheal Jewel lode, has a promising appearance—lode 4 ft. wide, composed of ore, mundic, and spar. There has been no lode taken down in Treweek's winze, at the 70 fm. level, west of Williams's cross-course, in the past week—when last reported worth 4l. per fm. Carkeek's winze, west of ditto, is worth 15l. per fm. Lode not taken down in the 57 winze, west of ditto cross-course, in the past week. In the past week, in the 57 fm. level cross-cut, north from Buckingham's lode, we intersected Tolcarne tin lode; we are glad to inform you that it has a better appearance here than at any level above, as near the cross-course it is 2 ft. wide, worth 15l. per fm. We have not taken down the lode in the shallow adit level, the deep adit level, nor the 12 fm. level, in the past week; the shallow adit level, when last reported, was worth 7l. per fm. The stopes in the back of the 12 fm. level, west of Pryor's winze, on Tolcarne tin lode, are worth 15l. per fm.; the stopes in the bottom of ditto are worth 20l. per fm.; the stopes in the bottom of ditto, west of Tregoning's winze, are worth 26l. per fm.; these stopes are working on tribute.

WHEAL CARPENTER.—The shallow adit, which is about 17 fms. below the surface, is driven 12 fms. west of west shaft, through a very promising looking lode, with some copper and tin in it. According to the indications, we may expect a good lode in our deep adit level, which is about 9 fms. below the aforesaid level. We are about to put the west shaft through to the deep level to complete it, and get the deep level under the kindly ground in the shallow level before-mentioned—it will take full two months from this time. This lode is a new one discovered to the north of the old Wheal Carpenter Mine, all in whole ground to the surface, upwards of 350 fms. in length—that is, to the boundary of the sett. The old mine was worked about 50 years since, at which time the adventurers made a profit of 20,000l., after paying one-eighth part for dues, as also driving the adit level upwards of a mile in length. This profit was realised at the adit level, above which we have about 80 or 90 fms. to drive to the deep level west to get against the productive part of the old mine. We have a long piece of kindly ground before us, which I believe will prove productive. As for a steam-engine, I cannot see it will be wanted for a great length of time, having such length and depth of ground before us, as before-mentioned, that will be drained by our deep level. I consider the speculation to be a very good one indeed.

WHEAL MARY ANN.—Pollard's shaft is sunk 2 ft. under the 60 fm. level. The lode in the 60 fm. level, north of the shaft, is 2 ft. wide, and worth 7l. per fm.; the lode in the same level south is 1½ ft. wide, and worth 4l. per fm. The lode in the 50 fm. level, south of the shaft, is 2 feet wide, worth 4l. per fm.; the lode in the winze, sinking under this level, north of the shaft, is 1 ft. wide, worth 5l. per fathom. The lode in the 40 fm. level, south of the shaft, is as last reported; the winze sinking under this level, south of the shaft, is suspended on account of the water, there being several fathoms more to drive to get the 50 under it. The lode in the 30 fm. level, south of the shaft, is 1½ foot wide, producing good stones of lead. We have resumed the sinking of Barratt's shaft under the 60 fm. level, where the lode is 5 feet. wide, and worth 12l. per fm.; the winze sinking under this level north is suspended on account of the water. The lode in the 60 fm. level, south of Barratt's shaft, is 4 ft. wide, worth 12l. per fm. The stopes generally are producing a fair quantity of lead. We sampled this day two parcels of lead ore—viz.: No. 1, computed 93 tons; and No. 2, 65 tons.

WHEAL PENHALE.—The summen are getting on very well in sinking the engine-shaft; we have now sunk 7 fms. below the 30 fm. level, and, with success equal to that of late, will attain to the 40 fm. level by the end of this month. The lode in the north end, 30 fm. level, has of late been disordered by an elvan course, but it is now getting past it, and beginning to appear very promising; since my last, the north end in this level has been suspended, the men being engaged in rising in the back of this level, to hole to the winze, which has been sunk in the bottom of the level above, for ventilation. Consequent on the plenitude of water, both winzes in the bottom of the 20 fathom level are suspended. At no former period has the tribute department looked better than at the present.

WHEAL TRELAWNY.—At Phillips's shaft, in the 82 fm. level north, the lode is 3 feet wide, worth 9l. per fathom. The 72 south is in to the boundary, and, consequently, stopped; in the winze, sinking under this level south, the lode is 1 foot wide, worth 6l. per fm. In the 62 north the lode is 2½ feet wide, worth 7l. per fm. At Trelawny's shaft the 92 cross-cut is driven 3 fms., ground favourable. In the 82 north the lode is 4 ft. wide, worth 7l. per fm.; in the 82 south the lode is 3 ft. wide, worth 8l. per fm. In the 72 north the lode is 3½ ft. wide, worth 14l. per fm.; the winze sinking under this level in killas is down 7 fms. At the north mine, in the 62 fm. level, north of Trehane boundary, the lode is 2 feet wide, worth 6l. per fm. In the winze, sinking in the bottom of the 55, the lode is 2 ft. wide, worth 7l. per fm.; we are still rising in the back of the 55 as noticed last week. In the 40, north of Smith's shaft, the lode is without alteration, nor is there any alteration in the winze in the bottom of the 30. Our stopes, on the whole, are not looking quite so well. We sold last week two parcels of lead ores—No. 1 crop, computed 100 tons, at 19l. 5s. 6d. per ton; No. 2 common, computed 40 tons, at 4l. 8s. per ton.

WHEAL VINCENT.—I stated to you in my last that we had cut the lode in the hill, but could not say much about it; since that I have discovered that it is a lode 8 fms. south of our main working lode in the hill, and bearing north of east, so that it will intersect our working lode about 50 fathoms east of the engine-shaft; there I have a new shaft going down to cut those lodes where they intersect. We have done nothing in the bottom ends in the moor this last week, in consequence of the water being in; we have been working on the stopes on the back of the level, and have broken a good pile of work, which is now under water; a part of this work was brought to the surface in sacks; being so rich, we shall not stamp it with the running of the mine.

FOREIGN MINES.

ALTEN MINING ASSOCIATION.—Estimated produce for April:—

Mines.	Tons of Ore.	Per Cent.	Fine Copper.
Raipas	40	8	3·200
Old Mine	46	5½	2·530
United Mines	20	5	1·000
Michell's	18	7	1·260
Carl Johan's	5	9	0·450
Mancur's	2	7	0·140
Total	131		8·580

Mining Report from the 20th April to the 14th May.

Raipas.—A still further deterioration has taken place under the 20 since the date of my last report, and, in consequence, the tribute returns for April show a material falling off; but we have every reason to expect an increase again in the present month. The great pitch, north-west of Monk's shaft, is become much more dredgy than formerly, and the ore is more disseminated throughout the lode. The workings in the 20 fm. level, on Labouchere's lode, are still very irregular and unsettled; but the produce has been good, with very favourable prospects. The returns from the other workings are small, but of the former good quality. We have been put to great inconvenience in bringing down the ore, first by a rapid thraw, and afterwards by severe frost and heavy falls of snow, which, for a time, prevented us from either using carts or sledges; but, after great difficulty, we have at length succeeded in bringing down the greater part of the April produce, although I fear we shall not be able to continue the driving longer than the end of this week.

United Mines.—The workings on Ward's lode are somewhat improved, and yield rather better returns, although the quality is still low. The new level continues to develope itself favourably, and next month, should the prospects be equally promising, we intend working this lode on tribute. At Woodfall's, the tributers are working on a small branch of ore on the back of the lode, which we expect will yield some good parcels of ore.

Old Mine.—No material alteration is perceptible in the prospects of this mine. The tributers continue to produce a fair quantity of ore, and notwithstanding the late fluctuation, we fully anticipate a more profitable result. Slungi's sink is looking more promising, and yields much better returns. The lode in the north-east sink is still hard, and the progress made in developing it is very slow, but the quality of the ore has improved. No further change is observable in the main lode easterly; the ground is hard, but the prospects are promising. In the adit level the ground continues favourable; it has latterly become somewhat wet, but, as yet, without any other sign of approaching the lode.

Michell's.—The tribute returns from the new lode have latterly been less remunerative, and the monthly produce shows, in consequence, a little falling off. On the other hand, the lode in the level from the new sink has improved, and looks more promising than at any former time—it yields about 3 tons of 7½ per cent. ore to a fathom. We are, however, obliged to suspend this working, for the purpose of timbering up the sink before the thaw takes place. Nellen's returns are rather improved, and, on the whole, we expect the May produce will show a good improvement on that of April.

Mancur's.—The returns from this mine are small, but remunerative; the prospects are not very encouraging, but we fully expect they will improve as the summer advances.

Carl Johan's.—The workings in the sink continue to yield profitable returns, and the prospects are still good. Another vein of good ore has latterly been opened near the surface of the old workings; the produce of this discovery is not rich, but improving, and we hope the returns will increase as the summer advances. The sudden changes we have latterly experienced in the weather have had great influence in retarding our usual progress, and to these, combined with the number of holidays falling in the month, may be attributed the falling off in the returns. We have, however, at this time, the prospect of more settled weather, and before the departure of the next post hope to have resumed the summer operations, after which you may expect to receive more cheering reports.

LINARES MINES.—The following has been received from Capt. Curry:—

Pozo Ancho, June 1.—During the past month our attention has been directed towards clearing and securing the 45 fm. level; also the several winzes carried down to this from the 31 fm. level, in order to render the productive ground available as soon as possible; and here I would beg to remark that, not having any of our drawing shafts connected with this level, we must confine ourselves for some short time to the productive ground in the immediate vicinity of these winzes, where the ores can be easily taken up and conveyed to the whim-shafts. The level east has been cleared nearly to the forebreast, and, previous to this level being driven, we purpose stoping the bottom and bringing up these levels regularly, which the men of old neglected to do, having ran up the hill several feet in a few fathoms driving. Three contracts on tribute are now let in this level, each at a tribute of 2 reals the arroba, to pay half a real per arroba for dressing, and are all doing well; three contracts on tribute in the 31 fathom level, at 2 to 2½ reals the arroba, to pay all costs, dressing included, and each doing well. Faull's pitch is still working at 26s. per ton, though we purpose raising his tribute a little, as we fancy he has hardly been remunerated for his labour. Our shafts are progressing satisfactorily; Wilson's is now down 9 fms. below the 31 fm. level, in which we have a lode 6 ft. wide, mixed, or thinly spotted, with lead, but not as it has been; this shaft we are anxious to see connected with the 45 fathom level, and for this purpose we have put all our English forces available in this place. Shaw's and St. Juan's shaft are each about 9 fms. below the 17 fathom level, the former being sunk on the course of the lode, which is large, with a leader of lead, worth about half a ton to the fathom; the latter has not yet come to the lode. I am happy to state that our raisings for May are equal to our calculations—viz., 60 tons, and we expect about the same quantity for June.

Ore in stock May 25, 1850	*Arrobas*	631
Weighed in this week		1970—2601

GUADALCANAL SILVER MINING ASSOCIATION.

The adjourned half-yearly general meeting of shareholders was held at the offices of the association, Broad-street-buildings, on Wednesday, the 12th inst.

ALFRED WILSON, Esq., in the chair.

Mr. RYDE (the secretary) read the notice convening the meeting, and the following reports of the directors and Capt. Rule, who had been to Spain to inspect the mine.

DIRECTORS' REPORT.

Your directors beg to state, that in compliance with the resolutions of the last general meeting, Capt. John Rule was engaged to go to Guadalcanal, and examine and report on the mines, and that he left London for that purpose on the 17th of April, and that on the 3d inst. they received his report. In the meantime, instructions have been given to keep down every possible expense at the mine.

It now becomes necessary that the shareholders should take into immediate consideration the position of the association, and that they should decide whether the working of the mine should be abandoned or continued; and, if the latter be determined on, under what conditions. The report of Capt. Rule having been received since the last general meeting, of which the present is an adjournment only, the directors are now desirous of having the decision of the shareholders as to the line of conduct desirable to be pursued.

The following report, from Capt. Rule, was then read to the meeting:—

Guadalcanal, May 23.—Having, in compliance with your instructions, made a thorough examination of the Guadalcanal Mine, both above and underground, I proceed to state to you the result thereof. Presuming that you are already fully informed as to the position and extent of the various works, the direction and underlay of the veins, &c., I omit going into details on these matters. It is hardly necessary to state, that my attention has been chiefly directed to the examination of the Pozo Rico Mine, in reference to which I regret to say, that while there is undoubted evidence of its former prosperity and richness, its present state is that of extreme poverty, for although the vein continues to exhibit such a form and character as it usually does when without ore, it is in all directions entirely devoid of any metallic produce. Having stated this fact, I proceed to the question—shall the mine be abandoned, or shall a further exploration be made, in the hope of discovering another rich deposit? In deciding this question, it is necessary to look to the general character of productive metallic veins, amongst which may be classed that of Guadalcanal. Of these, then, it may be stated generally that it is not one deposit only which they give, but frequently a succession of deposits, each of greater or less extent at uncertain and unequal distances, the space between them being nothing more than a barren vein of comparatively diminished size. As an example of such plurality of deposits, I may refer to the principal silver veins of Mexico, most of which have exhibited such a succession of rich bunches or deposits, not only in their direction longitudinally, but also in their course downwards, the space between them, as already said, being marked by the vein becoming sterile and of a small size. The great copper and tin veins of Cornwall are of a similar character, having generally given not one only, but many large, separate, and independent deposits of ore. From all these facts, therefore, I deduce the probability of there being other deposits of silver ore in the vein of Guadalcanal, and my opinion is, that circumstances warrant a further outlay, for the purpose of making trials on the course of the vein, both to the north and the south of the present workings. I do not at present recommend any further trial downwards, but I would not have it concluded that it may not become advisable at a future period. In my examination of the Pozo Rico vein, southward of the San Antonio shaft, my attention has been directed to a flookan, or cross vein, which intersects it, and beyond which the Pozo Rico vein has not been seen in any of the underground workings, excepting it be in the 104 fm. level, which having been driven 13 fms. southward in the direction of the lode through the disordered ground caused by the flookan, and then eastward 8 fms., has met with a lode 2 feet wide, composed of carbonate of lime, clay-slate, mundic, and flookan; and, although without ore, corresponding in underlay and direction to the Pozo Rico lode. In some costean pits, or superficial workings to the south of, and clear of, the flookan, a vein has also been discovered, corresponding in character, position, direction, and underlay to that of the Pozo Rico; I, therefore, think it is highly important, even if the works now going on in the 43 and 52 fm. levels, with the object of discovering it, should fail in doing so, that a more extended operation in a southern direction at these or deeper levels should be carried out, with a view of making a thorough examination, and of proving this important matter. Again, in the northern part of the Pozo Rico Mine, the vein, although poor, continues its regular course; I would recommend, therefore, the driving of two or three deep levels, as trial works, in that direction, to effect which the Marmolitos shaft should be continued down ward, for giving ventilation, and the means of discharging rubbish and ore, if any. The completion of the San Antonio shaft to the deep levels will also be an important work to be effected, for without it trials at the bottom levels cannot be carried on. Other matters connected with future operations will, of course, require consideration, in case you resolve to prosecute the undertaking further, which, as time does not admit going into at present, I must defer until my return to London, when I shall be ready to give any further explanation on the matters I have herein partially remarked upon. I purpose leaving this place to-morrow morning for Seville, and hope to return to England by the packet, which will leave Cadiz about the 4th or 5th of next month.

Balance Sheet, from 1st October, 1849, to 31st March, 1850.

Balance, as stated at last meeting	£ 838	2	10		
Cash received to date upon new capital	4268	10	0—	£5106	12 10
Carriage, freight, &c., 25l.; charges, 203l. 8s. 7d.	£ 228	8	7		
Office expences—rent, 50l.; stationery, &c., 46l. 16s. 5d.	96	16	5		
Remittances to Spain	2450	0	0		
Salaries	75	0	0		
Monthly notes	574	1	0—	3424	6 0
Leaving balance to March				£1682	6 10

The CHAIRMAN said, his colleagues, as well as himself, regretted that they had no better report to lay before the meeting. From the present state of their funds, and from Capt. Rule's report, it was evident that the only means of obtaining successful results was by driving further levels, with the hope of intersecting new deposits of silver in virgin ground, of which there appeared a probability, to effect which further capital must be raised. He thought it would be advisable to pass a preliminary resolution, to enable the directors to take steps for winding-up the undertaking.

Mr. PHILLIPS thought they had no grounds on which they could come to any resolution that day, except one of adjournment; the interest represented there being so small (only four shareholders were present besides the directors), and the Messrs. La'Mert and other large shareholders having told him it was only a formal meeting, and that it would be adjourned to await the return of Capt. Rule, he considered that the only step they would be justified in taking.

Mr. HODGE (a director) was of the same opinion; it was evident, from the tenor of Capt. Rule's letter, it only conveyed partial information, and that he had much more to give, *viva voce*, on his arrival.

Mr. THOMAS (a director) pressed for a resolution, enabling the directors to take preliminary steps for winding up, which would save much time in the end, and yet, should it be determined otherwise, would not prevent the requisite arrangements for carrying on this concern. The funds were exhausted, the directors could not be expected to find funds, and every week's delay represented something like an expenditure of 60l.—it appeared, however, the wish of the majority to hear Capt. Rule's opinion from himself, rather than entirely rely on a communication which he stated was written in haste; and as he is daily expected in London, a resolution was passed, by which the report was received, and the meeting adjourned to Wednesday next, at two o'clock.

A vote of thanks was then passed to the chairman, and the meeting broke up.

DYFNGWM MINING COMPANY.

The two-monthly meeting of adventurers was held at the offices, Old Jewry, on Wednesday, the 12th instant,

P. N. HADDOW, Esq., in the chair.

The minutes of the preceeding meeting were read, but no report or accounts were submitted, it being stated by the secretary that such were not deemed necessary. Some remarks having been made by Mr. English, it was resolved that in future the same be prepared and laid before the meeting. From the statement laid before the adventurers, held in April last, it appeared that the calls amounted to 3000l., and that 1811. 12s. 11d. had been received for ores sold; while the cost of mine to February was 2195l. 9s. 1d.; dividends, 150l.; March cost, 165l. 4s. 2d.; sundries, 5l. 5s. 8d.—leaving a balance in favour of mine of 625l. 14s.; to which was to be added, assumed value of 60 tons of ore, 720l.—in all, 1345l. 14s. The estimate then made of costs and returns was, the former 150l. per month, and the latter 300l.—thus shewing a prospective profit of 1800l. per annum, being equal to 6 per cent. on the capital invested. It however appeared, from a statement made by the secretary, that during the past two months only 5 tons of lead ore had been sold, and that, instead of assets which should have amounted to 1645l. 14s., only about 150l. was in cash, with some 20 or 30 tons of ore, valued at 300l. It was stated that additional water-power would be secured, so as to render the returns larger, and that the quantity of ore at surface, or in the mine, as last reported, was erroneous, the returns of ore during the past two months being 20 tons.

BEDFORD UNITED MINING COMPANY.

The usual two-monthly meeting of shareholders was held at the offices, on Tuesday, the 11th inst.—JOHN BROWNE, Esq., in the chair.

The account of expenditure and receipts, showing balance in favour of mine of 664l. 18s. 8d., and an account of payments and receipts before the next meeting on the 13th August next, showing a balance of receipts over payments of 1082l. 10s. 8d. (including the above 664l. 18s. 8d.), and an estimate of assets in reserve and liabilities incurred, showing a balance of assets over liabilities, were laid before the meeting, and a dividend of 2s. 6d. per share was declared

The following report, from Mr. Wolferstan, was read to the meeting:—

June 11.—The summen are employed in driving the cross-cut south in the 115 fm. level; the end is 3 fms. 2 ft. 6 in. from the shaft, and is at present in rather hard ground. The 103 fm. level has been extended north by the side of the cross-course, and 3 fms. east on the course of the lode, which proves to be 3 ft. wide, composed of can, spar, and good yellow ore, to the extent of 3½ tons per fathom. The present end is nearly under Bray's winze, and will be home to it by the time the winze is sunk to this level. Andrew's winze, in the bottom of the 103 fm. level, is sunk 1 ft. 6 in.; the lode in it is 2½ ft. wide, composed of fluor-spar, mundic, and ore; it is a very strong, promising lode, but not rich. The stopes in the back of the 103 fm. level are set on tribute, at 4s. in 12. In the 90 fm. level we are driving by the side of the lode, which has not been cut through during the last two months. Bray's winze, in the 90 fm. level, is sunk 9 fms., and to within 2 fms. of the back of the 103 fm. level; we expect to hole it this month. There is a fine productive lode in this winze, and it will lay open a considerable extent of very profitable ground. We have resumed driving east in the 80 fm. level, in consequence of the improvement in the lode, between it and the 70 fm. level; in driving both these levels the lode was comparatively poor, but between them it is large and productive, and has yielded on an average 8 tons of good ore per fm. during the last two months; nearly abreast of the 80 end it is now worth 5 tons of ore per fm. I hope it will be found to hold down and open new and profitable ground in the most eastern part of the mine. In the 70 fm. level east the lode is 2½ ft. wide, composed of can and spar, containing occasionally stones of lead, and altogether producing saving work for copper ore. The cross-cut north in the 47 fm. level is progressing favourably, in a clear killas; small branches are occasionally met with, containing mundic and ore. The tribute department is in a healthy and satisfactory state, and affords every prospect of supporting the present returns for a long time to come. The whole of the machinery is in a very efficient state, and we have been without accident of any kind.

EAST WHEAL GEORGE MINING COMPANY.

The bi-monthly meeting was held at the offices of the company, Fleet-street, on Tuesday, the 11th instant.—W. E. D. CUMMING, Esq., in the chair.—The minutes of the preceding meeting having been read, the accounts for the past two months, amounting to 374l. 3s. 10d, with the vouchers, were laid on the table. The purser reported the cash amount of the mine, and remittances made, the calls amounting to 1024l. Letters from Capts. Carpenter, Pomroy, and Mr. W. Mansell, were then read. An agreement entered into with Mr. Adams for the extension of the sett, with plan of the mine, were also submitted. It was resolved that the report and accounts be received and approved, and that the meeting do adjourn for a fortnight.

HEIGNSTON DOWN CONSOLS MINING COMPANY.

The usual two-monthly meeting of adventurers was held at the offices, on Tuesday, the 11th inst.—H. B. JONES, Esq., in the chair.

The accounts of receipts and expenditure showed balance in favour of mine of 671l. 19s. 9d., and also an account of payments and receipts before the next meeting on the 13th August, showing also a balance in favour of the mine of 57l. 17s. 3d., were laid before the meeting and passed.

The following report, from Capt. Richards, was read to the meeting:—

The 35 fm. level has been driven since your meeting of the 18th of April last 6 fms., the lode throughout which is worth full 40l. per fathom, and the present end is worth full 60l. per fm.; the winze below this level has been sunk 3 fms., and has produced some good saving work for copper ore; the middle cross-cut, towards the south lode, has been driven 4 fms. 3 ft.—ground rather hard, but of a strongly mineralised character. The 45 fm. level has been driven 5 fms. east of Victor's winze, the lode being large, composed of gossan and friable quartz, mixed with copper ore, and is improving, producing at present some good stones of ore; the cross-cut south, in this level, has been driven 3 fms. in very strong capels, impregnated throughout with copper ore and mundic. Hitchins's shaft is commenced sinking below the 20 fm. level, the lode in which is of a very promising character, as already alluded to in former reports. In conclusion, I beg to say we shall have, by the end of the present month, 35 tons of copper ore ready for the market.

RHOSWYDDOL AND BACHEIDDON MINING COMPANY.

At the two-monthly meeting of adventurers, held at the offices of the company, in the Old Jewry, London, on Tuesday last, the 11th instant, the accounts were examined and passed, showing—Balance from last account, 278l. 8s. 4d.; freight and expenses of transhipment of cargo, per *Ann and Mary*, 7l. 5s.; labour cost, April, 237l. 9s. 3d.; ditto May, 439l. 2s. 3d. = 724l. 16s. 7d.—By calls, 104l.; washing machine, 12l. 10s.; lead ores sold, April, 217l. 5s. 3d.; ditto, May, 210l. 16s. 8d.; settlement with underwriters, per *Ann and Mary*, 11l. 5s. 5d.—leaving balance against adventurers, 168l. 8s. 3d. A report was read from the manager, which stated that Prosser's level had been driven on a lode called the middle lode, which was the part most promising, and which had improved in driving. The lode was 5 ft. wide, sprinkled with lead ore and jack in sprigs and spots. In Augustus level the lode had become too poor to pay for driving. A discovery of lead had been made on the south main lode, and in sinking the lode opened kindly, and the lead improved. The main lode had courses of ore cropping out for 200 fms. The 17 fm. level had again entered on a course of lead, and improved daily. The month of June was begun with fairer prospects, the new discovery promising ore. The 10 fm. level had a more steady appearance; the 17 fm. level had entered on a fresh course of ore; the Augustus shaft was in good ore; and Prosser's level had again the appearance of productiveness. An epitome of the workings for the two months ending May 25, shows the total number of fathoms driven, sunk, and risen, 66 fms. 3 ft. 1 in.; number of fathoms stoped, 71 fms. 2 ft. 6 in. (deduct barren ground, 44 fms. 2 ft. 10 in.)=93 fms. 2 ft. 9 in. at an average cost of 44s. 8d. for driving, sinking, and rising, and of 32s. 6d. for stoping.

WHEAL FORTESCUE MINING COMPANY.

At the quarterly meeting of adventurers, held at the offices, Tavistock, on Wednesday last, the 12th inst., the accounts were examined and passed, showing—Balance last account, 30l. 10s. 8d.; labour cost for Feb., 81l. 15s. 4d.; March ditto, 60l. 14s. 5d.; April ditto, 68l. 19s. 1d.; merchant's bills, 136l. 11s. 8d. = 378l. 11s. 1d.—By call, 229l.; re-purchase of seven forfeited shares, 7l.; leaving balance against adventurers of 142l. 11s. 1d.—It was resolved to divide the mine into 1024 shares, and a call of 5s. per share was made.—The meeting adjourned to Monday evening next, to consider the propriety of suspending all operations during the scarcity of water, and of pursuing some trials commenced last summer on the south lode, near Capel Tor, as suggested by the agents, Capts. Seccombe and Key, in their report laid before the meeting.

WHEAL LANGMAID MINING COMPANY.

At a two-monthly general meeting of adventurers, held at Tamerton, on the 12th inst., an account of expenditure and receipts was laid before the meeting, the former amounting to 108l. 11s. 3½d., and of receipts 188l. 12s., leaving balance in hand of 80l. 0s. 3½d. Also an account of unpaid calls of 11l. 8s.

A list of parties who have not paid the call due on the 1st of May last was exhibited to the meeting, when it was resolved, that the secretary remind them, by letter, of the clause of forfeiture of shares, and request immediate payment.—The following report from the agent (Capt. Robins) was read:—

June 10.—Since we have commenced operations in this mine, March 27, 1850, we have brought up the open cutting 50 fathoms, and cut the lode; it is a beautiful blue flookan, 5 ft. wide, with fine bunches of prian, spar, and lead—a very promising lode. The shaft is sunk, and made secure for whim and footway, about 13 fms., and the men are engaged to sink to the 15 fm. level, which I think will be completed in the course of a fortnight; the ground in the shaft is a beautiful blue killas, carrying veins of soft spar, with fine spots of lead, and very indication to expect a good course of ore in the 15 fm. level.

The report was considered highly satisfactory, and it was resolved that, as soon as convenient after the lode is cut in the 15 fathom level, the purser be requested to call a special meeting of the adventurers, to decide on the future working of the mine.

WHEAL MARY MINING COMPANY.

At a meeting of adventurers, held at the mine, on Wednesday, the 12th inst., the accounts presented showed a balance of 151l. 17s. 11d. due to the purser, and a call of 5s. per share was made.—The following report, from Capt. Charles Andrawartha, was read to the meeting:—

June 12.—On Wheal Mary lode, since the last meeting, we have sunk the engine-shaft 3 fms.; it is down 8 fms. below the 90, but the ground is not so favourable for sinking as it has been. In the 90 east the lode is 18 in. wide, poor; in the same level west the lode is 2½ ft. wide, composed of spar, mundic, capel, and stones of ore. The 80 east is suspended; the men are sinking a winze in the bottom of the said level, west of engine-shaft. In the 70 east the lode is 18 in. wide, composed of spar, capel, and stones of ore. In the 50 west the lode is 2 ft. wide, composed of spar, capel, mundic, and stones of ore; the stopes in the bottom of the 50 east are suspended, and the ground set on tribute at 6s. in 1l. Parent lode, in the 50 fathom level east, is 1 ft. wide, saving work—since last meeting we have driven from 7 to 8 fms. through orey ground; in the same level west the lode is 8 in. wide, saving work. In the 30 west the lode is 1 ft. wide, but poor. At Charles's shaft, on middle north lode, the lode is 18 in. wide, producing 1 ton of ore per fathom. We have at present 15 pitches working, at an average tribute of 8s. 3d. in 1l. We sold on the 11th April 118 tons 18 cwts. of copper ore, which realised 493l. 2s. 8d., averaging 4l. 3s. 6d. per ton; on the 9th May 133 tons 3 cwts. of copper ore, realising 471l. 14s. 11d., averaging 3l. 10s. 10d. per ton; and to-morrow we shall sell about 135 tons, which we calculate to fetch about 500l.

WHEAL RUSSELL MINING COMPANY.

At the quarterly meeting of adventurers, held at the offices, Tavistock, on Wednesday last, the 12th inst., the accounts were examined and passed, showing—Balance last account, 336l. 1s. 5d.; labour cost for Feb., 162l. 11s. 6d.; March ditto, 166l. 2s. 5d.; April ditto, 140l. 18s.; merchants' bills, 326l. 15s.; lord's dues, 14l. 2s. 1d. = 1146l. 10s. 5d.—By tin ores sold March, 50l. 19s. 10d.; copper ditto April, 161l. 11s. 6d.; May ditto, 121l. 10s. 8d.; call, 476l.; leaving balance against adventurers, 336l. 8s. 5d., supposing all calls paid.—It was resolved to suspend the 26 fm. level on the south, that the agents may meet

those of Drake Walls, and consider the most advisable means for the interests of both companies for trying the lode west of the cross-course.—A call of 10s. per share was made.—A report from the agent was read, in which he stated he considered the north lode to be of very good promise, and recommended its being seen at a level much below the present depth. In the level on the south lode there was a good course of ore, varying from 1 to 3½ feet wide, yielding from 2 to 3 tons per fm. In the 26 fm. level there was a good lode, 2 ft. wide; and in a winze below the same level the lode produced from 2 to 3 tons per fm.

WHEAL SETON MINING COMPANY.

The usual two-monthly meeting of adventurers was held at the mine, on Monday, the 10th inst., when a dividend of *5l.* per share was declared.—The following abstract statement of accounts was presented, showing—Copper ore sold, March 7th, 1879*l.* 18s. 1d.; ditto April 4th, 2320*l.* 12s. 11d.; ditto western ground, 239*l.* 16s. 6d. (less lords' dues, 296*l.* 0s. 6d.)—4144*l.* 8s.—By cost for March, 1167*l.* 2s. 7d; ditto April, 1449*l.* 12s.; merchants' bills, 664*l.* 15s. 3d.: leaving profit, 862*l.* 18s. 2d.; to which add balance, last account, 438*l.* 12s. 6d. —1301*l.* 10s. 8d.; from which deduct dividend, *5l.* per share, 990*l.*, leaves balance to next account of 311*l.* 10s. 8d.

LISBURNE MINING COMPANY.

At the annual general meeting of adventurers, held at the Albion Tavern, Aldersgate-street, the accounts were examined and passed, showing—Lead ores sold (less dues), 23,638*l.* 3s.—By agents' salaries and labour cost, 12,908*l.* 1s 4d., merchants' bills, 3552*l.* 4s. 3d., showing profit on mine, 7378*l.* 9s. 11d., to which add balance last account, 3322*l.* 5s. 11d.—10,700*l.* 15s. 10d., from which dednct six dividends, 10*l.* per share each, leaves now in hand, 4700*l.* 15s. 10s. Thirty guineas were ordered to be distributed among the captains and clerks, in approval of their conduct.

Costs and Returns for Twelve months, to the end of December, 1849.

Date	Lead Ores. Tons c. q.	Amount. £. s. d.	Costs. £. s. d.	Profit. £. s. d.
Jan. and Feb.	363 17 1	3612 16 4	2275 1 5	987 14 11
March and April	469 9 0	4723 9 3	2702 4 5	1576 10 0
May and June	451 7 0	4303 12 8	2969 10 1	942 12 2
July and August	303 7 2	2902 11 4	2257 4 10	365 6 6
Sept. and Oct.	421 18 1	4249 1 8	2528 17 2	1332 2 6
Nov. and Dec.	592 17 2	6298 8 0	3526 15 2	2174 3 10
	2602 13 2	26,089 19 3	16,259 13 1	7378 9 11

The lords' dues amounted to 2451*l.* 16s. 3d., and net return 23,638*l.* 3s.

Mr. John Taylor presented a report, in which he observes—

I am happy to find that the prospects I held out in my last annual report, both as to the productiveness of these mines, and of an improved market for our ore, have been verified by the results of the past year. The competition for the produce of our Cardiganshire Mines is now a very active one, and the establishment of the Panther Smelting Works at Bristol has contributed very much to bring up the value of the Lisburne ores, which are rich in lead, and well cleaned, to a fair relative proportion, when compared with those from other districts. The condition of the mines themselves is not less cheering than that of the lead market. The improvement of the Frongoch Mine has been steady throughout the year, and it was never in a state to yield so large a return as at the present moment. At the Log-y-las some discoveries in the western ground have tended to maintain the value of the mine; and although it may be prudent to diminish the proportion of returns derived from it for a time, and to increase that from Frongoch, the character of the mine for steadiness and durability stands as high as it has been for years past. Upon the scale of returns of ore, and at present prices, the monthly profits upon these mines will exceed 1000*l.*, and will afford 20*l.* dividends; but I would venture to point out to the shareholders, that both large quantities of ore and good prices are necessary to enable us to maintain so handsome a profit. At the same time I may fairly congratulate them upon the prosperous state of the concern, and upon the prospects for the future, which the mines themselves now present.

SOUTH WHEAL TOLGUS MINING COMPANY.

At the annual general meeting of adventurers, held at the Albion Tavern, Aldersgate-street, the accounts were examined and passed, which showed —Copper ores sold (less lords' dues), 4427*l.* 2s. 6d.—By agents' salaries and labour cost, 3146*l.* 16s.; merchants' bills, 688*l.* 18s. 3d.—showing profit on mines of 591*l.* 8s. 3d.: to which add cal, 2*l.* per share, 512*l.*—1103*l.* 8s. 3d.: from which deduct dividend, 2*l.* per share, 512*l.*; and balance against the mine last account, 181*l.* 4s. 4d.—leaves in hand, 410*l.* 3s. 11d.

Costs and Returns for Ten Months, to the end of December, 1849.

Date.	Copper ores. Tons c. q.	Amount. £. s. d.	Costs. £. s. d.	Profit. £. s. d.	Loss. £. s. d.
March and April	92 0 0	542 4 0	732 1 8	—	226 0 3
May and June	118 1 2	615 11 0	780 19 5	—	206 9 1
July and August	123 4 2	619 11 11	650 0 2	—	71 14 6
Sept. and Oct.	212 13 2	1218 10 5	755 0 8	382 5 1	—
Nov. and Dec.	239 11 2	1747 9 2	917 12 4	713 7 0	—
	785 10 0	4743 6 6	3835 14 3	1095 12 1	504 3 10

Net profit ..... £391 8s. 3d.

In the returns is included a sum of 2*l.* 15s. for tin ores; the lord's dues were 316*l.* 14s.; and net returns, 4427*l.* 2s. 6d.

A report from Mr. John Taylor was read, in which he remarks—

The expense of these erections has added considerably to our cost during the last five months, notwithstanding which we have made a profit in January and February, 1850, of 735*l.*, and in March and April, of 901*l.* The quantity of ore raised during the last two months (the proceeds of which will be credited for the accounts for May and June), has been less than in the two months preceding, in consequence of our being obliged to suspend all operations in drawing ore through the shaft, while the guides for the new drawing apparatus were being fixed. This will produce a corresponding effect on our profits for the two months. I have, however, a confident hope that we shall be able to continue our present rate of dividends of 2*l.* 10s. per share: and that by the increased returns we can now command, we may, after paying off the remaining portion of the cost of the new engine and its appendages, be able to make larger profits.

UNITED MINING COMPANY.

At the annual general meeting of adventurers, held at the Albion Tavern, Aldersgate-street, the accounts were examined and passed, showing—Copper ores sold, 46,627*l.* 17s. 2d.; tin ditto, 807*l.* 18s. 2d.; arsenic, 49*l.* 5s. 4d.: together (less lords' dues), 45,506*l.* 10s. 6d.—By labour cost, agents' salaries, &c., 28,916*l.* 14s. 10d.; merchants' bills, 5853*l.* 15s. 1d.; engine or water cost, 8897*l.* 0s. 1d.: showing profit on mines, 1839*l.* 0s. 6d.; to which add balance, last account, 1877*l.* 1s. 5d.=3716*l.* 1s. 11d.—Two dividends of 5*l.* each per share have been paid: leaving balance of 1716*l.* 1s. 11d. to next account.

Costs and Returns for Twelve Months, to the end of December, 1849.

Date.	Copper Ores. Tons c. q.	Amount. £. s. d.	Costs. £. s. d.	Profit. £. s. d.
Jan. and Feb.	1813 19 2	6791 4 3	7020 2 1	—
March and April	2184 6 0	9286 10 2	7691 19 8	1207 11 10
May and June	1944 19 2	7993 10 2	7210 2 1	450 6 11
July and August	2003 0 0	7135 16 3	6875 16 11	—
Sept. and Oct.	2196 3 0	8213 2 5	7183 6 1	687 12 2
Nov. and Dec.	2224 15 0	8064 17 5	7686 3 2	42 13 8
	12,367 0 0	47,485 0 8	43,667 10 0	2388 4 7
Loss, January, February, July, and August				549 4 1

Balance of profit £1839 0 6

Included in the above returns, there were 21 tons 1 cwt. 0 qr. 25 lbs. tin, and 21 tons 19 cwts. 2 qrs. of arsenic. The lord's dues were 1978*l.* 10s. 2d.; and the net returns, 45,506 10s. 6d.

Mr. Richard Taylor stated, that he had seen several of the lords' agents, in reference to renewal of grants, and he did not anticipate any difficulty in arranging for new leases.—A report, from Mr. John Taylor, was read, of which the following is the concluding extract:—

It is gratifying to me to be able to state that I consider that the condition of this concern has, on the whole, materially improved during the last 12 months. Our discoveries of ore in the Ale and Cakes district have been somewhat greater in the preceding year, and our prospects in several of the levels are very encouraging; but the principal improvement has occurred in Poldory, where we have discovered several good courses of ore, which have added much to our resources; and we may look forward to deriving a larger amount of returns from this district in future than we have had for many years past. The chances of further discoveries on Wheal Moor lode, which we have both at South Poldory and to the south of Ale and Cakes, may now be regarded as an important feature in the prospects of these mines: and we shall not fail to push on the trial of these promising points. We have commenced the present year with increased profits; and we entertain the hope, if the value of copper ores does not much decline, that we may be able to make dividends more regularly than it was possible to do in the last year.

WHEAL FRIENDSHIP MINING COMPANY.

At the annual general meeting of adventurers, held at the offices, Queen-street-place, the accounts were examined and passed, showing—Copper ores sold, 19,094*l.* 19s. 7d.; tin, 144*l.* 14s. 9d.; arsenic, 40*l.* 10s.; lead, 45*l.* 19s. (less lords' dues) = 17,659*l.* 2s. 10d.—By agents' salaries, labour cost, &c., 12,183*l.* 18s. 1d.; merchants' bills, 2210*l.* 7s. 1d.—showing profit on the mines, 3264*l.* 17s. 8d.; to which add balance from the last account, 3882*l.* 17. 7d. = 7147*l.* 15s. 3d. Three dividends of 10*l.* each have been paid, leaving balance to next account, 3307*l.* 15s. 3d.

Costs and Returns for Twelve Months, to the end of December, 1849.

Date.	Copper ores. Tons c. q.	Amount. £. s. d.	Costs. £. s. d.	Profit. £. s. d.
January and February	430 19 2	3270 11 5	2460 7 8	563 0 0
March and April	456 0 0	3754 15 4	2702 14 5	751 2 10
May and June	440 4 2	3464 15 7	2456 11 9	730 18 0
July and August	413 16 2	2931 2 9	2129 19 4	567 1 3
September and October	492 4 2	3110 3 11	2403 17 9	459 19 5
November and December	362 9 0	2794 14 4	2240 14 3	202 16 2
	2505 12 0	19,326 3 4	14,394 5 2	3264 17 8

In the total amount of returns is included 3 tons 17 cwts. 2 qrs. 17 lbs. of tin ores, 27 tons of arsenic, and 5 tons 0 cwts. 3 qrs. of lead ores. The lords' dues were 1667*l.* 0s. 6d., leaving net receipts, 17, 659*l.* 2s. 10d.

The following are extracts from a report by Mr. John Taylor:—

The 60 fm. level having been driven west on the south lode far enough to come under the bottom of Wheal Hope shaft, it is found that the lode continues to be poor and unpromising at this depth, and there is nothing to encourage us to proceed further in sinking this shaft. On the north lode the 160 fm. level has been driven 38 fathoms, and the 180 fm. 52 fms., within the last months, westward on the course of this lode; these levels have been driven in all upwards of 140 fms. west from Taylor's shaft, and have advanced 70 or 10 fms. into the new sett of Palmer's tenement, and are now within 50 fathoms of reaching its western boundary. The stratum of black shale has continued to the present end of these levels, and there is no indication of any change to a better kind of ground. We are sinking a winze under the 200 fm. level on the south lode, which is down 4½ fms., in which the lode is large and kindly, producing 1½ ton of ore per fm.; this affords encouragement to prosecute the trial of this lode at greater depths. The 210 fm. level will now be driven to come under the winze, and it is also proposed to sink Taylor's engine-shaft for another level; this is a trial of considerable interest, and one from which very important results may accrue, as it is evident, from the greater underlay of the south lode, that it will form a junction with the main lode at 10 or 12 fms. below the 210 fm. level. On Brenton's south lode the 60 fm. level and the 40 fm. level have been driven many fathoms eastward during the past year, but have led to no discovery. In the adit level, east and west from Crow's rise, we have laid open upwards of 20 fms. of ore ground, producing, on an average, about 1 ton per fm., and we have commenced rising above this level; the lode is here promising, and it is hoped that considerable quantities of ore may be found between the adit level and the surface.

GOGINAN MINING COMPANY.

At the annual general meeting of adventurers, held at the Albion Tavern, Aldersgate-street, the accounts were examined and passed, showing—Lead ores sold (less lord's dues), 14,520*l.* 3s. 8d.—By agents' salaries and labour cost, 10,028*l.* 19s. 4d.; merchants' bills, 1786*l.* 19s. 6d.: showing profit on mines, 2704*l.* 4s. 10d., to which add balance from last account, 3091*l.* 10s. 4d., gives 5795*l.* 15s. 2d., from which deduct six dividends, amounting to 85*l.* per share (3500*l.*), leaves in hand, 2295*l.* 15s. 2d.; 25*l.* were ordered to be distributed among the captains and clerks in approval of their conduct.

Costs and Returns of Goginan Mines, for Twelve Months, to the end of December, 1849.

Date.	Lead Ores. Tons c. q.	Amount. £. s. d.	Costs. £. s. d.	Profit. £. s. d.	Loss. £. s. d.
Jan. and Feb.	164 2 3	2377 0 11	1696 13 0	450 7 11	—
March and April	211 17 3	3072 19 11	1839 10 1	932 19 5	—
May and June	197 0 0	2776 10 5	2224 14 9	286 9 6	—
July and August	195 15 3	2827 4 11	1899 13 7	647 11 4	—
Sept. and Oct.	187 1 1	2729 5 0	2003 4 7	466 10 5	—
Nov. and Dec.	146 3 3	2292 19 11	2152 2 10	—	79 13 9
	1102 1 1	16,076 1 1	11,815 18 10	2783 18 7	79 13 9
Total Profit				£2704 4s. 10d.	

The lord's dues amounted to £1555 17s. 5d., and net receipts £14,520 3s. 8d.

Mr. John Taylor observes, in his report—

It will be evident, from what I have said, that more works of trial, and for the extension of the concern, are doing at present than have been attempted for two or three years past; but there is sufficient encouragement afforded by the aspect of the lead market to justify our efforts. I have great hopes that valuable discoveries will yet be made, and should good fortune attend our exertions, the mine is well stored and prepared to make the most of any increase to the returns.

BRITISH ELECTRIC TELEGRAPH COMPANY.

This company's bill was read a third time in the Commons last night (Friday), and passed. We congratulate the public on this result, as they will now in consequence very speedily have the benefit of competition in the highly-important matter of electro-telegraphic communication.

Most strenuous efforts have been made during the progress of this bill, openly to effect its defeat, or covertly to neutralise its powers by the cunning insertions of some subversive amendments. The following emendations, *proposed* to be inserted, will give our readers some idea of the spirit of the opposition:—

Provided always, and be it enacted, that no electric telegraph shall be set up, laid, or placed by the company, or by any person, or persons, acting under any licence, granted by, upon, and along any line of railway, upon, and along which, any electric telegraph shall have been previously set up, laid, or placed, by any other company or companies, person or persons, for the use of the public, so long as such last-mentioned telegraph shall remain open and in operation.—[After clause 29.]

Provided always, and be it enacted, that it shall not be lawful for the company to set up, lay, or place, any wire-pipe, or tube, within the space of 10 yards from any wire, pipe, or tube, set up, laid, or placed, or at any time hereafter to be set up, laid, or placed by the "Electric Telegraph Company," except for the purpose of such wire, pipe, or tube, crossing a wire, pipe, or tube, belonging to the last-mentioned company, in which case such first-mentioned wire-pipe, or tube, shall not be set up, laid, or placed above, or within, the space of three yards from such other wire-pipe, or tube, if aboveground, and one yard of underground; and if the company shall lay, or place, any wire-pipe, or tube, contrary to this provision, they shall forfeit a sum not exceeding 5*l.* for every such offence; and a further sum, not exceeding 5*l.*, for each day during which any such wire-pipe, or tube, shall be laid, or placed, contrary to such provision.—[After clause 31.]

Both of these liberal suggestions were immediately negatived; the latter without even a division.

We cannot leave the subject without alluding to a most disgraceful and dishonourable act referring to this particular business, which was perpetrated at Crick by one of the officers of the company employed in the mechanical department, and absolutely acknowledged by the perpetrator himself, in his evidence before the committee. We cannot, perhaps, say more upon the subject here, without committing a breach of the privileges of the House; but the gentleman referred to will perfectly comprehend our meaning.

Sale of Machinery and Railway Plant at the Tweed Viaduct.—The operations of the contractors for the erection of the viaduct being nearly completed, the machinery and railway plant used by them in the construction of the works has been sold by auction. As might be anticipated from the almost total cessation of railway operations throughout the country, there was a smaller attendance of purchasers, and, consequently, less demand for this species of stock, than would have been the case a few years ago. Amongst the principal lots were the *Durham* locomotive and tender, which, having been very little used, was almost as good as new. There was a keen competition for it, and it was ultimately knocked down to Mr. Knight, of the Monkland Railway Company, for 1500*l.* The *Northumberland*, another locomotive, was bought by the same party, for 860*l.* The *Ballantyne* engine and tender was bought by Mr. Anderson, of the Edinburgh Perth and Dundee Railway Company, for 310*l.* Two high-pressure engines, of 50-horse power each, were sold at 330*l.* and 360*l.*, for the Duke of Hamilton. Another high-pressure engine, of 10-horse power, was sold at 170*l.*; and two of 6-horse power each, at 90*l.* and 95*l.* respectively. Lot 102, a patent pile driving machine, by Nasmyth, was sold for 900*l.* A large quantity of temporary rails, consisting of nearly 200 tons, was sold at an average of 3*l.* 12s. 6d. per ton. Besides these, there was a large quantity of timber, waggons, carts, implements, &c., disposed of.

Locomotives for Spain.—Several first-rate locomotive engines have, during the week, been shipped at Liverpool for Cadiz, to work on the line from Madrid to Aranjuez, now progressing rapidly to completion—the rails, chairs, &c., having been previously forwarded. The electric telegraph has been laid throughout, to secure the earliest information from the capital. Other considerable lines of railway are in course of construction, and considerable orders have been received by contractors for the requisite materials, which will be admitted under the new and modified tariff.

ACCIDENTS.

Levant Mine.—Richard Grenfell, while climbing a scuttle hole after blasting, was struck on the head by a stone, and very slight hopes are entertained of his recovery.

Wheal Trelawny.—Richard Hooper was preparing a hole for a blast, when he did not hear the signal, "fire," from a miner in the same level; the consequence was, he was struck in the bowels by a large piece of rock, and died soon after.

Carmarthenshire.—As some men were felling timber near the Ponticlere Iron-works, an oak tree fell on a man named David Edwards, and crushed him so dreadfully, that he expired shortly afterwards.

Sheffield.—As T. Needham was engaged removing some "knogs" in the Soap-house pit, a mass of coal fell and killed him.

Ludworth Colliery, Durham.—J. Justice was killed by a stone falling from the roof of the pit where he was working.

Murton Colliery.—As J. Daly was hewing coal in the Slingley Hill Flat of the Middle Pit, a stone, about 6 feet square and 20 inches thick, fell and killed him.

Howdon Colliery, North Shields.—J. Brymer has died from the effects of injuries received by a large stone falling from the roof of the pit upon him, dislocating one of his shoulders, breaking one of his thighs, and otherwise injuring him.

Longstone Downs, near Bristol.—D. Martyn, on ascending the shaft of a coal pit, fell from the ladder a depth of 6½ fms., and was killed on the spot.

Llanelly.—John Evans, having been missed rom his work, search was made, when he was found crushed to death under a piece of coal 2 tons weight.

Glamorganshire.—W. Morgan was killed by an arch falling at the Dowlais Works.

Pontypool.—R. Powell was killed by a fal of earth, at the Varteg Company's New Pit.

A Colliery on Fire.—It will be remembered that 75 persons lost their lives in Darley Main Colliery, near Barnsley, in January, 1849. We have again to notice a serious misfortune to the proprietors by the coal bed taking fire. Early on Wednesday morning, George Whiteley, who attends the cupola in the pit, noticed an unusually strong current of air pass him, by which he became alarmed, thinking some of the doors which conduct the current of air had been left open, and caused the current to take a wrong direction. He, therefore, lighted a safety-lamp, and started for the purpose of making the doors right. He had not gone far before he heard two other men running towards him, and shouting out to him to save himself, if possible, as an explosion had taken place. He replied that could not be the case, for the current of air was so strong that it could scarcely stand. They, however, went to the bottom of the shaft, and continued for above an hour repeating the usual signal to be drawn out of the pit before any one answered them. After much anxiety they were drawn out, and the workings examined, when it was ascertained that the bed of coal was on fire, and raging to a great length of the face. It was found to have originated from allowing the ashes in the engine flues, which are in the workings, to accumulate. The whole of Wednesday was spent in endeavouring to arrest the progress of the fire, but its impetuosity increased to such an extent, that at night not less than 500 to 700 yards of the face of the coal was in one continuous fire; and such was its force, that at 9 o'clock at night there was a continual blaze of great length from the top of the cupola, which came from the workings at a depth of 100 yards. It was determined this morning to close all the roads and air-gates which lead to the parts on fire, and, if possible, prevent any air getting to it.

LATEST CURRENT PRICES OF METALS.

LONDON, JUNE 14, 1850.

	per ton.
ENGLISH IRON. *a*	
Bar, bolt, & square, London	£5 0–5 7 6
Nail rods	6 5 0–6 10
Hoops	7 0 0–7 10
Sheets (singles)	7 10 0–8 5
Bars, at Cardiff & Newport	4 10 0–4 15
Refined metal, Wales*	3 5–3 10
Do. anthracite*	3 10 0
Pigs in Wales	3 0–3 15
Do. do. forge	2 10–3 0
Do., No. 1, Clyde ... *net cash*	2 5 0–2 6 0
Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport*	3 15 0
Do., do., for tin-plates, boiler plates, &c., ditto	4 10 0
Stirling's Patent Pigs in Glasgow	2 16 0
Toughened Pigs in Wales	3 5–3 10
Staffordshire bars, at the works	6 0
Rails	4 15–5 5
Chairs	4 0 0
FOREIGN IRON. *b*	
Swedish	11 15–12 5
CCND	—
PSI	—
Gourieff	—
Archangel	—
FOREIGN STEEL. *c*	
Swedish keg	13 10–14 10
Ditto faggot	15 0
ENGLISH COPPER. *d*	
Sheets, sheathing, & bolts, *p. lb.*	0 0 9½
Tough cake	*per ton* 84 0 0
Tile	£83 0 0
Old copper *e*	*per lb.* 8½d 8¾d
Yellow Metal Sheathing	8d
FOREIGN COPPER. *f*	
Chili	—
ENGLISH LEAD. *g*	
Pig	*per ton* 18 0–18 5
Sheet	19 0
Pipe	19 0–19 10
Red lead	19 0 0
White ditto	25 0 0
Patent shot	20 10 0
FOREIGN LEAD. *h*	
Spanish, in bond	17 5 0
ENGLISH TIN. *i*	
Block	*per cwt.* 3 14 0
Bar	3 15 0
Refined	4 0 0
FOREIGN TIN *k*	
Banca, H. C.	3 12–3 13
Ditto, for Export only	3 12–3 13
Straits	3 10–3 11
TIN-PLATES. *l*	
IC Coke	*per box* 1 6 6–1 7
IC Charcoal	1 11–1 13
IX ditto	1 17 0
SPELTER. *m*	
Plates, warehoused	*per ton* 14 15–15 0
Ditto, to arrive	—
ZINC. *n*	
English sheet	*per ton* 21 0 0
Quicksilver *o*	*per lb.* 4s.

REMARKS.—Copper has been dull of sale during the week, whil e bar-iron has been firm.—Lead has been in no demand.—In spelter there has been but little done.—Banca tin has been in request, but few sellers. A good business has been d oing in tin-plates, but they are scarce.

LIVERPOOL, June 11.—There is rather more business doing in manufactured iron, but without any alteration in prices. Scotch pig-iron is very dull of sale; for, although the make is reduced considerably, it is amply sufficient to meet the actual demands, and the stock, about 300,000 tons, remains untouched. There has been a good demand for tin-plates, and the price, in consequence, may be quoted 1s. per box higher. No change in lead or copper.

GLASGOW, June 14.—There has been little doing in pig-iron for the past week; holders, however, are very firm—anticipating higher prices. The prices of three-fifths No. 1, and two-fifths, No. 3, are 45s. 6d. to 46s., cash. Buyers at 45s., cash.

THE IRON TRADE.—PIG-IRON WORKS IN SCOTLAND.

Works.	Furnaces, Jan. 1, 1850. In.	Out.	Total.	Furnaces, June 12. In.	Out.	Total.
Dundyvan	8	1	9	—	9	9
Clyde	5	2	7	—	7	7
Lugar	4	—	4	3	1	4
Muirkirk	1	3	4	1	3	4
Kinneil	4	—	4	2	2	4
Gartsherrie	16	—	16	10	6	16
Eglinton	3	1	4	1	3	4
Glengarnock	9	—	9	5	4	9
Carnbroe	3	3	6	—	6	6
Monkland	9	—	9	8	1	9
Langloan	6	—	6	—	6	6
Govan	4	2	6	4	2	6
Calder	5	2	7	2	5	7
Coltness	5	1	6	3	3	6
Dalmellington	3	—	3	2	1	3
Summerlee	6	—	6	4	2	6
Forth	4	1	5	—	5	5
Omoa	4	—	4	3	1	4
Shott's	4	—	4	2	2	4
Castlehill	2	1	3	2	1	3
Lochgelly	1	1	2	—	2	2
Blair	—	5	5	—	5	5
Garscube	—	2	2	—	2	2
Devon	2	1	3	1	2	3
Carron	2	3	5	1	4	5
Portland	2	—	2	1	1	2
Total	113	29	141	53	88	141

New Patents.

SPECIFICATION ENROLLED DURING THE PAST WEEK.

S. Fisher, Birmingham, engineer: For improvements in railway carriage wheels, axles, buffer and draw springs, and hinges for railway carriage, and other doors.—1. "Railway carriage wheels," Mr. Fisher proposes to construct, by bolting a number of segmental pieces of iron together, and to a flanged tyre on each side. The nave is made of iron in the shape of two cones united by their bases with screws tapped on each. Each of the faces of the wheel is made with a central opening, through which one of the screwed ends of the nave is put. After which, screw nuts are put on the nave and screwed up, whereby the side will be forced from the apex towards the base of the cone, and the wheel consequently distended.—2. It is proposed also to make railway carriage wheels with wrought iron spokes inclosed in a cast-iron casing. For this purpose a number of pieces of wrought-iron are bent into an elbow shape, to form the spokes and felloe, and arranged, in a suitable casting mould, around a nave. The melted metal is then poured in so as to entirely enclose the spokes and felloe.—3. "Railway axles" are to be made in two pieces and united, by causing the end of one to take into a hollow in the end of the other, and preventing them from separating by means of collars and set screws.—4. "Buffer and draw springs" are to be made in a C form, of wood (by preference beech) instead of metal, coiled helically round a core.—5. "Railway carriage and other door springs" are to be formed of strips of vulcanized Indian rubber, attached both to the door and door post, and hid from observation by plates. The claims embrace the various improvements described.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

W. E. Newton, C.E., Chancery-lane, certain improvements in the manufacture of cords, ropes, bands, strong c'oths, quilting sacks, and cushions, and in elastic material for stuffing the latter, in which manufacture caoutchouc forms an essential engredient; and in the application of parts of these improvements to the manufacture of pads, stoppers, tubes, boxes, baskets, coverings, wrappers, and other like articles of utility;—also for improvements in machinery for carding cotton, wool, or other fibrous materials, and in apparatus for preparing or setting the cards of carding engines;—also for improvements in rotary-engines;—also for improvements in the construction of railways.

J. Colman, Stoke Mills, Stoke, Norwich, improvements in the manufacture of starch.

P. A. Lecomte de Fontainemoresu, South-street, Finsbury, certain improvements in oscillating engines put in motion by steam and gas, resulting by combustion;—also for certain improvements in the manufacture of sulphate of soda, muriatic and nitric acids.

C. Warwick, Cheapside, warehouseman, improvements in apparatus for taking up the work of certain descriptions of knitting machinery.

W. Jackson, Kingston-upon-Hull, soap maker, improvements in the manufacture of soap, and in the preparation of materials to be used for this purpose.

R. Waddell, Liverpool, engineer, certain improvements in steam-engines.

A. Parkes, Pembrey, Carmarthenshire, experimental chemist, improvements in smelting and treating certain metals, and in the construction and manufacture of furnaces and the materials to be used for the same, such furnaces and materials being applicable to the treatment of metals and metallic compounds, and to various other useful purposes.

W. Pole, Great George-street, Westminster, and D. Thomson, Belgrave-road, Pimlico, improvements in steam-engines.

J. H. Vries, Norfolk-street, Strand, improvements in working engines by atmospheric air.

J. P. Budd, Ystalyfera Iron-works, Swansea, improvements in the manufacture of coke.

J. D. Dunnicliff, Hyson Green, Nottingham, lace manufacturer, and J. W. Bagley, Radford, lace maker, certain improvements in lace and other weavings.

S. Ellis, Salford, engineer, improvements in machinery or apparatus applicable to all kinds of carriages used on railways.

F. A. Gatty, Accrington, manufacturing chemist, a certain process, or certain processes, for obtaining carbonate of soda and carbonate of potash.

W. Cox, Manchester, cigar merchant, for certain improvements in machinery or apparatus for manufacturing aerated waters, or other such liquids.

J. Sidebottom, Broadbottom, Chester, improvements in looms for weaving.

W. M'Lardy, Manchester, machinist, improvements in machinery or apparatus for preparing and finishing, and doubling cotton and other fibrous materials.

A. V. Newton, Chancery lane, improvements in the production of gases to be used for lighting, heating, and motive-power purposes.

G. P. Harding, Bartlett's-buildings, London, artificial florist, improvements in the manufacture of buttons and other fastenings.

T. Deakin, Balsall Heath, Worcester, improvements in machinery and apparatus to be used in rolling metals, and in the manufacture of metal tubes.

J. Stopporton, Isle of Man, engineer, improvements in propelling vessels.

G. A. Everitt and G. Glydon, Kingston Metal Works, Birmingham, improvements in the manufacture of metal tubes for locomotive, marine, and other boilers.

J. Manly, jun., Birmingham, manufacturer, improvements in the manufacture of nails.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

John Rowan and Sons, York-street Foundry, Belfast, factory ventilators.
George Frederic Hipkins, Birmingham, "the sportsman's companion."
C. A. and T. Ferguson, Millwall, gun carriage.
Edward Greenslade Bradford, Teignmouth, Devon, jeweller, fastener for garments.
John Edward Smith, Lawrence-lane, Cheapside, shirt.
T. Grubb, C.E., Dublin, spindle and bearing for the dashers of revolving dasher churns.
James William Giles, Aldersgate-street, dress pin.—*Mechanics' Magazine.*

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

FRIDAY.—Bate's West Hartley 13—Carr's West Hartley 13 6—Chester Main 13—Davison's West Hartley 13 6—East Adair's Main 11 6—Holywell 14—Ord's Redheugh 13—Tanfield Moor 12 6—Tanfield Moor Bute's 12—Townley 13—West Hartley 13 6—Windsor's Pontop 12—Wall's-End Gosforth 13 6—Gibson 12 9—Original Gibson 12 6—Riddell 13 3—Lambton Primrose 14 9—Bell 14 6—Belmont 14 9—Braddyll 15 6—Cresswell 14—Hetton 16—Haswell 16 3—Jonassohn 12 9—Russel's Hetton 15 6—Whitwell 13 6—Caradoc 14 6—Heugh Hall 14—South Hartlepool 14 6—South Kelloe 14—Whitworth 12 3—Adelaide Tees 15 3—Seymour Tees 13 6—South Durham 13 9—Tees 16—Hartley 12 9—Nixon's Merthyr and Cardiff 20—Sydney's Hartley 14.—Ships, 116.

Current Prices of Stocks, Shares, & Metals.

STOCK EXCHANGE, Saturday morning Eleven o'clock.

Bank Stock, 8 per Cent., 208	Belgian, 4½ per Cent., —
3 per Cent. Reduced Ann., 96½ ¾ 6 ¼	Dutch, 2½ per Cent., —
3 per Cent. Consols Ann., 97⅛ 7 ½ 7 6⅞	Brazilian, 5 per Cent., 88½
3¼ per Cent. Ann., 98½ ¾ 8 ½	Chilian, 6 per Cent., 99
Long Annuities, 8½	Mexican 5 per Cent., ex Coup., 31½ ⅝
India Stock, 10½ per Cent., —	Russian, 5 per Cent., 109
3 per Cent. Con. for 17th July 96 ½ 5¾ ½	Spanish, 5 per Cent, 17⅛ ⅜ ¼
Excheq. Bills, 1000*l.*, 1½d. 68s 71 pm.	Ditto 3 per Cent., 38½ ¾

Mines.—Not more than an average amount of business has been transacted during the week; still there are many bargains, which are likely to come off, now in course of negociation. The accounts from the mines continue very favourable, as will be seen on perusing the numerous reports furnished in another part of the Journal.

At Pendarves Consols we have been advised that the main lode, which had been cut during the previous week, had considerably improved, and was now worth full 40*l.* per fm., with every prospect of further improvement; several transactions have taken place.

At West Wheal Jewel the Tolcarne lode has been intersected by the cross-cut in the 57, and stated to be worth 15*l.* per fm. for tin.

Improvements have been advised in Herodsfoot, South Tolgus, Wheal Basset, and Treleigh Consols.

The weekly report from Wheal Trelawny advises the sale of two parcels of silver-lead ore, No. 1. 100 tons, at 19*l.* 5s. 6d. per ton, and No. 2, 40 tons, at 4*l.* 8s. per ton. At Mary Ann they had sampled 155 tons—No. 1, 93 tons, and No. 2, 65 tons.

Inquiries have been made for Tresavean, Trethellan, Treleigh Consols, West Wheal Treasury, and Alfred Consols.

Roche Rock shares continue to be inquired for, and several transactions have taken place at an advanced premium. Crebor shares have also been in request at a premium, and are likely to advance.

At the Tywarnhale and Nancekuke meeting, the agents reported that many of the old levels were opening productive points; while the new ones, in virgin ground, are exceedingly rich. The deepest is the 100 fm. level, where the lode has just been cut; the 90 was producing 12 tons of ore per fm.; the 80, 14 tons; and Bennett's shaft is opening ground worth 100*l.* per fm. These discoveries are promising, as approaching the rich ground in Great Wheal Towan, which, 40 years ago, was the richest mine in the county. These mines were worked by the United Hills, and other companies, at a loss, and were put into their present condition by the Duchy taking them up—a proof of what may be effected by perseverance and capital rightly directed.

At Wheal Seton meeting a dividend of 990*l.* was declared, being 5*l.* per share. The profit on the two months' working amounted to 862*l.* 18s. 2d., which, added to the balance from the last account, allowed the above dividend, and carrying to credit of next account 311*l.* 10s. 8d. The report presented at the meeting gave a very gratifying account of the present operations, as well as future prospects.

A dividend of 2000*l.*, being 2*l.* per share, has been declared by the directors of Carn Brea for the previous two months' workings, making the third dividend this year.

North Wheal Basset has declared a dividend of 5*l.* per share

At the Levant meeting the accounts for March and April were audited, and a dividend of 5*l.* per share declared, leaving to credit of next account a balance of 948*l.*

At the Bedford United meeting a dividend of 2s. 6d. per share was made for the two months. The account of expenditure and receipts showed a balance in favour of the mine of 664*l.* 18s. 8d. and an account of payments and receipts before the next meeting showed a balance over payments of 1082*l.* 18s. 8d., and the estimate of assets in reserve and liabilities showed a balance of 2524*l.* 5s. 10d. The agent's report is very encouraging, and confirms an important discovery advised last week.

At the usual monthly meeting of Kirkcudbrightshire shareholders, held on the 11th, the accounts showed a profit of 42*l.* for the month, and the general prospects of the company were much improved.

At the Heigston Down meeting, the account of receipts and expenditure showed a balance in favour of the mine of 671*l.* 19s. 9d.; and also an account of payments and receipts before the next meeting, showing a balance in favour of the mine of 57*l.* 17s. 3d. was laid before the meeting, and passed. The agent's report is of a very gratifying character, and there is every reason to hope that the mine will prove productive.

At the meeting of Rhoswiddol and Bachieddon Mines, the accounts showed a balance of 168*l.* 8d. 3d. against the adventurers. The present month (June) has commenced with important improvements, and the returns, it is expected, will be considerably increased. The returns for the past two months appear to be about 40 tons, which nearly pays the costs.

At the Wheal Langmaid meeting, the accounts showed balance in hand, 80*l.* 0s. 3d., and calls unpaid, 11*l.* 8s. The agent's report was satisfactory.

At the Wheal Mary meeting, the accounts showed a balance in favour of the mine of 151*l.* 17s. 11d. The report was favourable.

At the Wheal Fortescue meeting, the accounts showed a balance against the adventurers of 142*l.* 11s. 1d.—It was resolved to divide the mine into 1024 shares, and a call of 5s. per share was made.

At the Wheal Russell meeting, the accounts showed a balance against the adventurers of 336*l.* 8s. 5d., supposing all calls paid, and a further call of 10s. per share was made.

At the annual meeting of the Lisburne adventurers, the accounts showed the ores sold during the year to have produced 23,638*l.* 3s., and a profit of 7378*l.* 9s. 11d., with a balance from last account of 3322*l.* 5s. 11d. Six dividends, of 10*l.* each, were paid, leaving in hand 4700*l.* 15s. 10d. These mines are situated in Cardiganshire, and produce large quantities of lead ore. The monthly profits are expected to be in future 1000*l.*, which will give dividends of 20*l.* per share every two months.

At the annual meeting of adventurers in the Goginan Mines, the accounts showed the ores sold, during the year, to have produced 14,520*l.* 3s. 8d., and profit, 2704*l.* 4s. 10d., with a balance from last account, 3091*l.* 10s. 4d. Six dividends were paid, amounting to 35*l.* per share: leaving in hand, 2295*l.* 15s. 2d. This mine is situated in Cardiganshire. The ore is not rich; but is made profitable by the admirable means employed in dressing it. It had been more profitable in former years; but there are indications that great discoveries will yet be made, and the mine be more productive than ever.

At the annual meeting of the South Tolgus adventurers, the accounts showed the ores sold, during the year, to have produced 4427*l.* 2s. 6d., and profit, 591*l.* 8s. 3d.—less a balance from last account, 181*l.* 4s. 4d. There has been a dividend paid, and a call made each of 2*l.* per share within the year: leaving in hand, 410*l.* 3s. 11d. Considerable machinery and erections have increased the cost in the past five months; but there is every reason to hope that continuous dividends of 2*l.* 10s. per share every two months may be paid; and that, by increased returns, larger profits may be made.

At the annual meeting of adventurers in Wheal Friendship, the accounts showed the sale of ores in the year to have produced 17,659*l.* 2s. 10d., and profit, 3264*l.* 17s. 8d., with a balance from last account of 3882*l.* 17s. 7d. Three dividends of 10*l.* per share have been paid: leaving in hand a balance of 3307*l.* 15s. 3d. This mine is remarkable, as having been under one management, that of Mr. John Taylor, for more than half a century, continuing nearly the whole of that period a flourishing concern, and paying large profits to the adventurers. There are still chances of further valuable discoveries in this mine.

At the annual meeting of adventurers of the United Mines, the accounts showed the sale of ores in the year to have produced 45,506*l.* 10s. 6d., and profit, 1839*l.* 0s. 6d., with a balance from last account of 1877*l.* 1s. 5d. Two dividends of 5*l.* per each share have been paid: leaving in hand, 1716*l.* 1s. 11d. These mines have been worked many years, returning large profits to the adventurers, and effecting a vast deal of good in the district from the great number of hands employed. A large amount of ore ground has been laid open during the year; and the immediate and future prospects are much improved.

Shares in the following mines have changed hands during the week:—South Wheal Frances, Treviskey and Barrier, Tresavean, South Basset, Mary Ann, Penzance Consols, Treleigh, West Treasury, Alfred Consols, Stray Park, Trethevy, Kingsett and Bedford, Lelant Consols, Wheal Franco, South Plain Wood, Langford, Pendarves Consols, Gustavus, Herodsfoot, Tremayne, North Buller, Tavy Consols, Wicklow Copper, East Gunnislake Junction, South Tolgus, East Buller, &c.

In Foreign Mines, there have been several transactions, but principally in St. John del Rey, Santiago, Cobre, and Linares; there has also been a few bargains in South Australian, Copiapo, National Brazilian, Imperial Brazilian, United Mexican, and Worthing shares.

The Alten report for April has been received; the estimated produce is given at 131 tons of copper ore. The report advises no important improvement, and the returns have been retarded by the weather.

The advices from Linares continue of the same favourable nature, and the returns are equal to expectations, 60 tons having been raised for May, and the same quantity is calculated on for June.

At the Guadalcanal meeting, a report from Capt. Rule was read recommending further operations at the mines; but as he is daily expected in town, the meeting was adjourned to Wednesday next.

We understand that the celebrated district of Guanaxuato, in Mexico, has been more productive during the past year than at any former period. Up to December last the coinage of silver amounted to $12,000,000, and of gold $700,000. The ores of silver will yield from 9 to 15 per cent. of gold. The annual receipts of the Santa Lucia Mine was $2,400,000; it is owned mainly by the Godoy family, and each party, for some considerable time, averaged $17,400 per month as his share of the profits. Most of the mine-owners sell the ore to speculators, who supply the haciendas, and sometimes making good profits. The celebrated La Luz Mine has been claimed by several parties—Mr. Mackintosh claiming the whole, the litigation of which caused a run on the house of Manning and Mackintosh, which, however, withstood the shock.

A further dividend of 3s. 6d. per share has been declared by the Anglo-Mexican Association.

Government Mining Inspection.—We are enabled to state that a bill has been prepared by Government on the ventilation and inspection of mines and collieries, and which will be very shortly introduced into the House of Commons.

PRICES OF MINING SHARES.

BRITISH MINES.

Shares.	Company.	Paid.	Price
1000	Abergwessin	9	—
1024	Alfred Consols	8¾	27½ 30
1248	Allt-y-Crib	5	5
1024	Arundell	2½	—
1024	Ashburton United Mines	9¾	—
1624	Balleswidden	9	14
128	Balnoon Consols	42½	20
905	Barristown	5½	3
3650	Bawden	¼	½ ¾
6000	Bealbury	1	1
4000	Bedford	2½	4¾ 5
1280	Birch Tor & Vitifer	10½	6 6½
5000	Black Craig & Craigton	—	5
8000	Blaenavon	50	12½
5000	Blisland Consols	1	—
1024	Bodmin Consols	3	3
5000	Bodmin Moor Consols	1	3
60	Bosorn	3½	10 12½
100	Botallack	182	110
120	Brewer	5	2½
10000	British Iron, New, regis.	12	8
—	Ditto ditto, scrip	10	10
2400	Bryn-Arian	2	1½ 2
107	Budnick Consols	52½	10 11½
260	Butterdon	1	2 3
1000	Callington	26	5
1000	Camborne Consols	7	5½
20000	Cameron's Steam Coal	7	—
256	Caradon Mines	22½	10
256	Caradon United	24	5 8
1536	Caradon Vale	½	—
1000	Carbona	5	12 15
572	Caradon Wh. Hooper	5½	4½
1000	Carn Brea	15	125
1000	Carthew Consols	1½	7
113	Charlestown	220	—
500	Comblawn	5½	4½
128	Comfort	45	47½
256	Condurrow	20	85 90
2560	Cook's Kitchen	14	5½ 6
1000	Coombe Valley Quarry	5	5 5½
1000	Copper Bottom	7½	—
900	Court Grange	9	10
212	Craddock Moor	23½	5
128	Creeg Braws	120	30
530	Cubert Mine	12½	—
1000	Cwm Erfin	4	3½ 4
1000	Daren	2	7 7½
7100	Derwent	10	3
502	Devon & Courtenay Con.	11½	3 3½
1024	Devon Great Consols	1	235 40 42½
1000	Dhurode	2	[illegible]
182	Dolcoath	30	20
2560	Drake Walls	6½	2½ 3
10000	Durham County Coal	45	9
3000	Dyfngwm	10	5
2500	East Birch Tor	3	3
1024	East Buller	2	4¾ 5
2048	East Crowndale	7½	1½
256	East Godolphin	10½	13
4000	East Gunnis Lake Junc.	½	½ ¾
128	East Pool	15	80
9000	East Tamar Consols	1½	1¼ 1½
256	East Tolgus	1½	7
128	East Tywarnhayle	1	3
94	East Wheal Crofty	125	95
128	East Wheal Rose	50	510
256	East Wheal Seton	2½	2¾
—	East of Scotland Iron Co.	5	1½
1280	Esgair Llee	2	4
248	Exmoor Wh. Eliza	11	8 10
494	Fowey Consols	40	45
1024	Freidd Llwydd Mines	1½	3½
256	Garras	41	23
4000	Gen. Mining Co. for Irel.	1½	4
2500	Georgia Consols (Tin)	½	1½
256	Gonamena	44½	16
128	Goonvrea	4	2
256	Grambler & St. Aubyn	80	17½
96	Great Consols	1000	250
512	Great Wheal Baddern	—	50
512	Gt. Wh. Rough Tor Con.	24½	20
6000	Growa Slate Company	5	5
1026	Gustavus Mines	3	3½
1024	Hawkmoor	12¾	10
6000	Heigunston Down Con.	2½	3 3½
1500	Hennock Silver-Lead	21s	3½
4500	Hennock Iron & Tin	21s	21s
512	Herodsfoot	16 15	15½ 16
10000	Hibernian	12½	1¾
1000	Holmbush	22	10
1900	Keswick	10	2 3
1024	Kingsett and Bedford	3½	4 4½
787	Kirkcudbrightshire	8½	5 5½
2048	Lamherooe Wh. Maria	10	6 7
252	Lanarth Consols	—	7 8
256	Lelant Consols	47	18½ 20
160	Levant	—	180
1000	Lewis	17	9½ 10
1000	Llwynmalees	9½	10
3600	Llynvi Iron	50	50
6000	Marke Valley	10	¾ 1
5000	Mendip Hills	3½	2
128	Metha	34	—
20000	Mining Co. of Ireland	7	4½
1024	Moditonham & Marrabro'	1½	—
1024	New East Crowndale	2	2
1024	North Buller	1½	3¾ 4
100	North Pool	45	450 475
140	North Roskear	5½	160
262	North Wh. Leisure	1½	2
512	North Wheal Vor	—	2½
128	Par Consols	55¾	650
1026	Pendarves Consols	2	6 7 7½
1000	Pendarves & St. Aubyn.	4	5½ 6
1248	Pengelly Tin	1	1
4934	Pennant & Craigwen	3	3½ 4
1000	Penybank and Erglodd	4	5
1024	Penzance Consols	22s 3d	3½ 3¾ 4
5000	Peter Tavy & Mary Tavy	½	¾ 1
512	Plymouth Wh. Yeoland	6½	6
112	Providence Mines	—	150
2500	Rhoswiddol & Bacheiddon	10	10
10000	Rhymney Iron	50	12
10000	Ditto New	7	3
5000	Roche Rock Tin	1	1½
2500	Rocks Mine	5	6 7
2048	Runnaford Coombe Tin	2½	5

BRITISH MINES—*continued.*

Shares.	Company.	Paid.	Price.
9000	South Tamar	1	2¾ 3
128	South Caradon	5	270
1100	South Dolcoath	6	¾ 1
256	Sth. Friendsh. Wh. Ann	30	28 30
256	South Molton	7	12 13
1024	South Plain Wood	1	7 9
300	South Speed	5	5
256	South Tolgus	16	130 35 40
256	South Trelawny	28½	5 8
2000	South Wales Mining Co.	1	1
256	South Wheal Basset	10½	250
124	South Wh. Frances	160	515
256	South Wh. Josiah	2	3½ 4
10000	Southern & Western, Irish	2½	4
280	Spearne Moor	30	40
128	Spearne Consols	10	60
256	St. Aubyn and Grylls	2½	7 8
94	St. Ives Consols	—	80
128	St. Michael Penkivel	5	10½
999	St. Minver Consols	1	6
1000	Stray Park	43	22 23
9600	Tamar Consols	3	4 5
10240	Tavistock Consols	½	½ ¾
687	Tavy Consols	8	3½
6000	Tincroft	7	12 13
240	Tolcarne	8	14 15½
5000	Tregear Consols	1	2 2½
256	Tregorden	3½	7 8
256	Trehane	1½	25 30
5000	Treleigh Consols	6	3 3½
200	Trelyon Consols	—	2½
2000	Trenance	3	—
1500	Trenault Lime Quarries	2	3
96	Tresavean	10	100
120	Trethellan	5	26 27
120	Treviskey and Barrier	130	240 5
512	Trethevy Copper	2½	2¾ 3
512	Treville (Lewanick)	½	7½
1000	Tyllwyd	2	2½
200	United Mines	50	160
256	Wellington Mines	25	30
128	West Buller	10	550 600
256	West Caradon	20	95
512	West Fowey Consols	40	12
1024	West Par Consols	5	—
2500	West Polgooth	5	7
	Ditto Notes	3	4½
512	West Providence	9	20 21
200	West Seton	45	180
120	West Trethellan	5	20
512	West Wheal Frances	1½	9
256	West Wh. Friendship	9	8
3845	West Wheal Jewel	12	2½ 3
940	West Tolgus & Treloweth	12	5½ 6
500	West Wheal Towan	2½	11 12
1024	West Wheal Treasury	7 10	11 12½
1024	West Wheal Virgin	½	¾
1024	Whiddon Mines	4¾	—
5200	Wicklow Copper	5	14½ 15
5000	Wicklow Copper and Sulphur Mines	3	3½ 3¾
107	Wheal Adams	130	150
1000	Wheal Agar	—	6
256	Wheal Albert	10	28 29
240	Wheal Anderton	28	—
128	Wheal Ann	—	50½
512	Wheal Anna Maria	7	4
120	Wheal Bal	10	22
256	Wheal Benny	19	5
1024	Wheal Bray	11½	—
232½	Wheal Calstock	9	10
256	Wheal Carpenter	—	7½
268	Wheal Courtenay	20	23
182	Wheal Elizabeth	9	20
256	Wheal Fortescue	15	—
100	Wheal Friendly	70	66½
764	Wheal Franco	27	16 18
4000	Wheal Golden	2	5 6
1000	Wheal Grose	3s	5½
100	Wheal Henry	—	40
256	Wheal Kingston	½	1½
6000	Wheal Langford	½	1
—	Wheal Langmaid	—	¾ 1
1024	Wheal Lawrence	3½	3½
112	Wheal Margaret	79	180
512	Wheal Mary Ann	5	42 43
360	Wheal Oak	25½	5
3000	Wheal Penhale	1½	6
210	Wheal Prospect	4	7
1024	Wheal Providence	1	2½ 3
120	Wheal Reeth	41	75 80
198	Wheal Seton	107	250
1056	Wheal Sarah	5	6
512	Wheal Sophia	6¾	7
128	Wheal Squire (St. Erth)	—	5
128	Wheal St. Ann	30	35
1100	Wheal Trescoll	6½	7
260	Wheal Trelawny	7½	90
256	Wh. Tremaine (St. Ervan)	9½	2½
1024	Wheal Tremayne	9½	11 12
267	Wheal Tryphena	40	62½
512	Wheal Venton	2½	3½ 4
1000	Wheal Vincent	5½	7
128	Wheal Vlow (Perranz.)	1½	1½
184	Wheal Vyvyan	—	60

FOREIGN MINES.

Shares.	Company.	Paid.	Price.
5000	Alten Mining Company	1½	2½ 2¾
15000	Asturian Mining Co.	15	—
20000	Australian	4	3 3½
6000	Barossa Range	1½	1½ 2
10000	Brazilian Imperial	23	6
12000	Cobre Copper Co.	40	34
10080	Copiapo Mining Co.	14	3¾ 4½
20000	General Mining Ass'n.	20	13 13½
4000	Guadalcanal	5	1
2000	Ditto Preferential	2½	2
5000	Kinzigthal Mining Ass.	2	½
8000	Linares	3	3 3½
500	Ditto New	3	3 3½
5051	Mexican Company	59½	—
20000	Mexican & South Amer.	8	1 1½
5000	National Brazilian	30	3
104000	N. Brit. Australasian	1	9s 10s
7000	Royal Santiago	10	11½ 10
11000	St. John del Rey	15	10 15½ ¼
43174	United Mexican Av.	28½	6½
10,000	Worthing (S. A.)	2	1 1½

⁎ We should feel obliged by agents, or others, furnishing us with corrections—our object being to present as correct a list of prices as can be obtained.

Kaw-aw Mine, New Zealand.—The *Kate* has arrived at Swansea, with 190 tons of copper on ore from this mine on board. The German smelter who is going out has seen the regulus, and says he can raise it to a good per centage. By the last accounts large quantities of ore were in sight, and otherwise the communications are of a more favourable nature than they have been.—From the manager of the Bon Accord also, the letters are favourable; in a part of the property, not much regarded hitherto, coal has been found, for which good terms have been offered; and it is said that the Burra Burra Company are disposed to give 15,000*l.* for the whole of the Bon Accord property.

Exhibition of 1851.—The coal trade of Northumberland and Durham will not be behindhand in contributions to the Grand Exhibition of the Works of Industry in 1851. It is proposed that there shall be sent up—1. A map of the coal district, showing the extent and outcrop of the different coal-beds, together with the "faults" and other remarkable interruptions, scale 1½ inch to a mile.—2. Section of the coal-field from and to given points, north and south, and a similar section from east to west; horizontal scale, 4 inches to a mile; vertical scale, 150 feet to an inch.—3. Model, in pieces, showing the structure of a given portion of the coal-field.—4. Synopsis of the coal seams in explanation of the maps and sections, comprising sections at various points of the coal-field.—5. Statement of the extent and duration of the coal-field at the present rate of vend.—6. Fossils.—7. Working plan of colliery, exhibiting the system of working and ventilating coal mines in the district.—8. Model, showing ventilation.—9. Treatise on the cause of explosions.—10. Specimens of various strata, properly arranged.—11. Materials, &c., employed in coal mining, models of machinery, underground railways, engine-shaft, &c., safety-lamps, loading machinery, drops, &c.

LEAD ORES.

TICKETINGS FOR ABOUT 100 TONS (20 CWTS.) FOXDALE LEAD ORE.

Douglas, Isle of Man, June 8.

Bidders.	*Price per Ton.*
Mather & Co., and Newton, Keates, & Co, Bagillt (purchasers)	£11 11 0
J. H. Meredith, trustee of the late J. T. Treffry—Fowey Consols	9 19 0
Combmartin Smelting Company—Barnstaple	10 0 0
Tamar Smelting Company—Beeralston	10 13 6
Thomas Somers—Bristol	10 10 6
Sims, Willyams, Nevill, & Co.—Llanelly	10 10 0
Pontifex and Wood—Newcastle	10 11 6

Ticketings at the White Horse Hotel, Holywell, June 13.

Mine.	*Tons.*	*Price.*	*Purchasers.*
Maesyrerwddu (Talargoch)	48	£11 5 0	Walker, Parker, & Co.
Coetia Llys ditto	40	12 10 0	ditto
Hendre	71	11 6 0	ditto
ditto	17	11 1 0	ditto
ditto	12	11 2 6	ditto
Fronfownog	100	10 7 6	Newton, Keates, & Co.
ditto	63	10 6 0	ditto
Aberdune	7	10 12 0	ditto
Talacre	100	12 7 6	Walker, Parker, & Co.
Deep Level (Halkin Mines)	100	11 1 0	ditto
Lloc	50	11 15 0	ditto
Conlig	100	10 2 6	Newton, Keates, & Co.
Rhoswiddol	12	9 15 0	ditto
Conlig	1	12 1 0	J. P. Eyton.
Total tons	721.		
Sold at Aberystwith, June 1.			
Bwlch Consols	45	£14 15 6	Newton, Keates, & Co.
Sold at Newtown, May 28.			
Bryntail	16	£11 6 6	J. P. Eyton.
Sold at Liskeard.			
Wheal Trelawny	100	£19 5 6	Locke & Co.
ditto	40	4 8 0	Sims & Co.
Sold at the Mine.			
East Wheal Rose	60	£14 0 0	R. Michell & Son.
ditto	59	12 11 6	ditto
ditto	36	13 16 6	Tamar Company.
Sold in London.			
Tamar	80	£19 11 6	Tamar Company.

BLACK TIN.

Mine.	*Tons.*	*Price.*	*Purchaser.*
East Crowndale	10	£42 0 0	Daubuz, Calenick Co. and Williams.
ditto	2	20 15 0	J. H. Enthoven and Co.
Plymouth Wheal Yeoland	5	44 12 6	Daubuz.
Lewis	15	46 12 6	Daubuz and Williams.
ditto	2½	40 12 6	ditto and ditto

COPPER ORES.

Sampled May 29, and Sold at Andrew's Hotel, Redruth, June 13.

Mines.	*Tons.*	*Price.*	*Mines.*	*Tons.*	*Price.*
Carn Brea	103	£5 16 6	Levant	103	£2 5 0
ditto	100	3 10 0	ditto	78	4 14 0
ditto	93	8 17 0	ditto	63	7 2 0
ditto	79	6 11 0	West Wh. Treasury	61	7 5 0
ditto	72	5 18 0	ditto	52	3 17 0
ditto	71	7 11 6	ditto	42	10 10 0
ditto	63	3 17 6	ditto	41	10 17 0
ditto	61	5 14 6	Wellington Mines	60	5 10 6
ditto	55	5 16 0	ditto	45	5 8 6
ditto	54	2 17 6	ditto	42	5 19 0
ditto	50	3 9 6	ditto	15	14 5 0
ditto	49	5 2 0	Wh. Mary	75	3 8 6
Tywarnhayle	112	3 1 6	ditto	60	4 15 6
ditto	84	2 12 0	West Wh. Seton	81	4 16 0
ditto	79	3 18 6	ditto	45	5 4 6
ditto	77	8 18 0	Wh. Agar	57	5 9 0
ditto	61	2 13 0	ditto	33	3 7 6
ditto	60	2 12 0	ditto	32	2 18 0
ditto	37	4 1 0	Alfred Consols	53	6 5 6
ditto	28	1 6 6	ditto	47	11 17 0
ditto	25	3 14 0	Charlestown United	63	4 15 0
ditto	24	4 1 6	ditto	30	2 1 6
ditto	5	5 1 0	ditto	4	14 12 0
Nancekuke	63	4 1 0	Wh. Tremayne	48	4 13 0
ditto	41	0 15 0	ditto	38	3 0 6
ditto	30	2 8 0	West Fowey Consols	74	5 9 6
ditto	20	2 4 0	Herland	17	3 19 6
Par Consols	86	6 7 6	ditto	8	7 2 6
ditto	76	7 14 0	St. Aubyn & Grylls	12	3 6 6
ditto	71	7 14 0	ditto	10	5 14 6
ditto	65	7 4 0	Wh. Friendship	13	3 2 0
ditto	44	0 11 0	Trezise	12	1 2 6
Wheal Buller	102	6 9 0	East Wh. Treasury	10	4 18 9
ditto	91	4 8 6	Trannack	5	5 14 0
ditto	67	5 10 0	Wh. Squire	4	6 6 6
ditto	22	9 0 6	Pembroke	1	6 10 0

TOTAL PRODUCE.

Carn Brea	850	£4744 7 0	Charlestown Mines	97	£419 18 0
Tywarnhayle / Nancekuke	746	2680 4 6	Wheal Tremayne	86	338 3 0
			W Fowey Consols	74	405 3 0
Par Consols	342	2215 7 0	Herland	25	124 11 6
Wh. Buller	282	1627 12 6	St. Aubyn & Grylls	22	97 3 0
Levant	244	1045 13 0	Wh. Friendship	13	40 6 0
West Wh. Treasury	196	1528 6 0	Trezise	12	13 10 0
Wellington Mines	171	1089 0 0	East Wh. Treasury	10	49 0 0
Wh. Mary	135	543 7 6	Trannack	5	28 10 0
West Wh. Seton	126	623 18 6	Wh. Squire	4	25 6 0
Wh. Agar	122	514 16 6	Pembroke	1	6 10 0
Alfred Consols	100	889 10 6			

Average Standard £ 99 11 0 | Average Produce 8

Average Price per ton £5 4 6

Quantity of Ore 3663 tons | Quantity of Fine Copper, 292 tons 9 cwts.

Amount of Money £19,050 3 6

LAST SALE.—Average Standard £105 7 0.—Average Produce 6⅞

Standard of corresponding sale last month, 105*l.* 4s.—Produce, 7⅞.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	189	£875 18 0
Vivian and Sons	1034	5399 15 10
Freeman and Co.	447	2138 15 4
Grenfell and Sons	169	642 19 6
Crown Copper Company	2	29 4 0
Sims, Willyams, and Co.	632	2580 2 1
Williams, Foster, and Co	962	6169 11 0
Schneider and Co.	228	1213 17 9
Total tons	3663	£19,050 3 6

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcels.—Devon Great Consols, Wheal Josiah, Wheal Maria, Wheal Fanny, and Wheal Anna Maria 1352—West Caradon 348—Marke Valley 270—Fowey Consols 243—Wheal Friendship 232—Holmbush 128—Bedford United Mines 118—Phœnix Mines 103—South Wheal Fortune 63—West Wheal Jewel 57—Wheal Busy 42—Wheal Pink 37.—Total, 2993 tons.

Copper ores for sale on Thursday week, at Lenderyou's Hotel, Truro.—Mines and Parcels.—United Mines 835—Par Consols 363—Tresavean 306—Wheal Comfort 233—South Caradon 226—Treleigh Consols 73—West Trethellan 36—Gonamena 30—Wheal Banns 20.—Total quantity of ore to be sold, 2122 tons.

COPPER ORES

At SWANSEA, for sale June 27.—Berehaven 125, ditto 124, ditto 115, ditto 103, ditto 84, ditto 83.—Cuba 100, ditto 95, ditto 93, ditto 78, ditto 44, ditto 40.—Knockmahon 98, ditto 90, ditto 62, ditto 60, ditto 48.—Kapunda 25, ditto 17, ditto 16.—Forest Slag 52.—Burra Burra 48.—Australian 38.—London Ore 9.—Ballymurtagh 44.—French ore 18.—Vine Slag 12.—South Australian 6, ditto 5.—Gloucester Slag 2.—Santiago 33.—Total, 1767.

MINING APPOINTMENTS DURING JUNE.

15. Fowey Consols setting and pay.
17. Condurrow account on the mine—Fowey Consols sampling.
18. East Pool and Fowey Consols account, on the mine.
19. North Roskear and other mines sampling.
20. Ticketing at Redruth—Devon Consols and other mines.
21. Budnick pay—Levant tutwork pay.
22. Pay day at Wheal Seton, Treviskey, Fowey Consols, Agar, Great Consols, United, Comfort, and West Buller.
24. Par Consols sampling.
26. Carn Brea and other mines sampling.

NOTICES TO CORRESPONDENTS.

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

MINING MATERIALS.—We shall publish a detailed list of prices of materials used in mining in our next Journal.

In our account last week of the reported discovery made by Mr. H. M. Payne, of Wercester (U. S.) of a new mode of economically producing gas, for purposes of illumination, we stated that it consisted of certain arrangements whereby water was decomposed by electricity, and the resulting hydrogen subsequently charged with the necessary quantum of solid matter for producing a good light, by causing it to pass through a carbonising vessel on its way to the burner; and it was inadvertently remarked, in the course of our explanation, that, as the descent of a heavy weight appeared to be the prime mover in the accomplishment of this result, the probability was that the decomposition was effected by *frictional electricity*. We feel it necessary to correct this misstatement. The achievement of such a result by such means is all but impossible in the present state of our knowledge, as the *quantity* of gas furnished by frictional electricity is so extremely small. Indeed, we vastly question *whether in any single experiment*, from the first discovery of the fact by the associated Dutch chemists to the present time, *a single cubic inch* of the mixed gases has ever been directly eliminated by frictional electricity. The idea, therefore, of producing 1000 *cubic feet per hour* by these means is obviously quite out of the question, more especially when we consider the clear and definite laws referring to this subject, which have been developed by the perseverance of Dr. Faraday.

VENTILATION OF COLLIERIES.—Mr. J. A. Whitfield, of Gateshead, suggests the taking advantage of making small coal into coke, by constructing a drift from the coke ovens to the upcast shaft, on which a chimney is to be erected, the heated vapours from the coke forming a partial vacuum, and causing a powerful current of air to pass through the pit, and by which the expense of the underground furnace would be avoided. He also proposes to place an outer chimney round the drift, to preserve the heat from the action of the atmosphere and winds. Lime kilns, he also suggests, might be applied to the same purpose; but we fear the carbonic acid given off from them would defeat the object.

"M." (Camborne).—Wheal Crebor has been set to work, and we believe the reports will regularly appear in our Journal. Any particulars can be ascertained on application to the secretary, at the offices, 76, Cornhill.—See the letter of Mr. Ennor, in another column.

"A Miner" can find the information he requires in our "Glossary of English and Foreign Mining and Smelting Terms," which can be procured of any bookseller, price 2s.

RAILWAY SHARES.—The highest London price at which the York and North Midland shares were quoted was on the 11th October, 1845—117*l.* to 119*l.* each. The London and North-Western shares were quoted on the 9th August, 1845, at 246*l.* to 252*l.*; and the Great Western at 224*l.* to 225*l.*

GENERAL MINING ASSOCIATION.—"A Shareholder" should first bring the matter before the forthcoming general meeting, convened for the 27th inst. We have no doubt, on a proper representation to the directors, his wishes will be complied with. We shall at all times have pleasure in publishing particulars, whether as reports or otherwise, of the company's proceedings.

"T. B." (Woolwich).—We have already published detailed descriptions of Phillips's Fire Annihilator. We apprehend there must be some mistake in our correspondent's statement respecting the wholly unsuccessful experiments—a full-sized house having been constructed, under the patentee's own inspection, and when fired the invention was found to be literally useless—the building being consumed in spite of the utmost efforts of Mr Phillips and his assistants. According to "T. B.," this is the second failure in Woolwich—the first was with a house built at the public expense; the one now referred to was at the cost of the parties interested in the invention.

"An Engineer" (Leeds).—We know that a public dinner to Mr. R. Stephanson is contemplated; we believe it will take place at the Central Station, Newcastle, but do not know if the time has been fixed upon.

"A Subscriber" can obtain what he requires on application to Mr. Moate, Old Broad-street; Mr. Short, Newman's-court; or Messrs. Whitcomb and Barton, Old Broad-street.

TAVY CONSOLS.—SIR: In the Notices to Correspondents, in last week's Journal, you refer to an error made by one of them a few weeks since, with respect to the cost of each share in the Tavy Consols. It is quite true that only 6*l.* per share has been absolutely *called* since the original distribution and purchase of the shares, but, in addition to this 6*l.* so called, we must, of course, place the first cost of the share, and then it will be found that your late quotation of 8*l.* per share, *cost* and paid, was pretty nearly correct.—A SHAREHOLDER: *June* 10.

"W. E." (Liverpool).—The position of the West United Hills Mining Company will be understood on reference to the proceedings of the last meeting of adventurers, reported in the Journal of the 25th May.

"M." (Tavistock).—We decline inserting the communication. Address the purser, at the offices of the company, 12, Copthall-court, Throgmorton-street.

"B." (Brighton).—Dr. Mantell's "Thoughts on a Pebble" can be had of the publishers, Messrs. Reeve, Benham, and Reeve.

"W. W." (Blakeney).—Obtain Mr. Dunn's "Winning and Working of Coal Mines," and the "Inventions, Improvements, and Practice of Benjamin Thompson, in the combined character of Collier, Engineer, and General Manager,"—both can be had of Mr. Weale, 59, High Holborn.

HYPOTHESES OF IRON.—In reply to "J. W." (Brettell-lane), we are informed by Mr. Mitchell that he has not yet completed the experiments alluded to—it is a very lengthy matter, involving many hundred analyses, and much time. The ordinary routine of analysis of iron ore may be found in Mr. Mitchell's "Manual of Practical Assaying;" and that gentleman also supplies detailed written instructions on analysis, for a fee.

"An Adventurer" (Tavistock).—A letter addressed to the office of the company, No. 76, Cornhill, will reach [illegible] will readily give the required information.

PENNANT AND CRAIGWEN MINING COMPANY.—"A Subscriber" remarks on the omission at the late meeting, of all reference to the *number* that was formerly represented "to be produced from the Pennant Mine, in such quantity, as to pay the cost of the mine; what is the reason we now hear nothing said about it? In April, 1849, a call was made by the chairman of 8s. per share, to be paid in instalments of 2s. per share, the chairman distinctly stating they should not require all the money, but wished to have the power to call up the whole 8s. per share, if found necessary; the whole call of 8s. was paid, debentures issued for 600*l.*, and now the chairman makes a further call upon the shareholders of 10s. per share, to be paid by the 22d June. I should be glad of some explanation respecting the strange difference of the chairman's statement made to the shareholders in April, 1849, with his present one, requiring upwards of 3000*l.*, with every appearance of further demands being made upon them.

LONG AND SHORT DAYS.—At Berlin and London the longest day has sixteen hours and a half; at Stockholm, the longest day has eighteen and half hours; at Hamburgh, the longest day has seventeen hours, and the shortest seven; at St. Petersburgh, the longest day has nineteen, and the shortest five hours; at Tornea, in Finland, the longest day has twenty-one hours and a half, and the shortest two hours and a half; at Wanderas, in Norway, the day lasts from the 21st of May to the 22d of July, without interruption; and at Spitzbergen the longest day is three months and a half.

Mr. Lake's "History and Manufacture of Gunpowder," shall be continued in our next.

SMOKE OF LONDON ("R. S.").—A correspondent on this subject wishes to ascertain the difference of cost in the consumption of coal and coke in domestic fires, as he thinks an Act of Parliament ought to be passed to compel the burning of coke, to abolish the nuisance of the smoke of London. He considers that the comfort, and the saving in *washing*, would compensate for the additional expense. He is even so ungallant as to remark on what he is pleased to term the "personal plainness" of the ladies of London, and says he "saw few beauties, which he attributes to their constantly living in the smoke, like Vulcans." We know not how long our correspondent remained in London; but we think he must indeed have been in a fog, as it is generally conceded that the women of London are as engaging in personal appearance as in any locality in England, or in Europe. We question if they are, taken collectively, surpassed even by the Lancashire witches. A great deal said about the smoke of London is mere twaddle, the parrot-like repetition of a hackneyed saying, without analogy.

ERRATUM.—In the article, in last week's Journal, referring to Mr. Arthur Dean's report on the Crebor Mine, a mistake occurred which requires notice—the word "improving" being used for "unpromising," in the 23d line from the end of the article.

*** It is particularly requested that all communications may be addressed—

TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, JUNE 15, 1850.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

In our last Number, we took a general review of the report of Mr. J. KENYON BLACKWELL, on the working and ventilation of collieries; and, having since received that of Mr. JOHN PHILLIPS, the other inspector appointed by Government, we proceed to lay some of its details before our readers. The coal-fields of Northumberland and Durham, Derbyshire and Yorkshire, are the districts reported on by Mr. PHILLIPS; and he has collected a mass of information illustrated by diagrams of a most interesting and valuable kind, and which, taken in conjunction with Mr. BLACKWELL'S production, gives a very general view of the various systems of working, the best means of securing proper and efficient ventilation under each, and for escaping those dangers which are inseparable from coal mining, and which can only be avoided by strict attention to a system of well-defined regulations.

The districts of Northumberland and Durham, in which coal is found, occupy a large portion of the two counties; but of this great area that part formed by the mountain limestone, about two-thirds, and that covered by the millstone-grit, yield but small supplies of coal, though in some places, especially in the shales, they produce ironstone. The total thickness of the coal series, including the upper feature, the millstone-grit, has been given by Mr. W. FORSTER, at 1600 ft., of which the several seams of coal take up 50 or 60 ft., or about 1-30th part. The inclination of the strata is generally eastward, and, although very moderate, is sufficient to render the lowest beds almost inaccessible near the sea-coast, the pits in the extreme eastern range having already reached the depth of 1800 feet. The heat at this depth is 86° Fahr., and fire-damp abundant; and it is probable that this is near the maximum depth which will be attempted. The lower coal strata rising westward are exposed in so many dales, and round the edges of so many hills, as to have been easily traced, opened, and worked by the ancients; and it is probable that here the first working for coal in the Newcastle district commenced; old wastes are often met with, old pillars left by former owners are discovered and worked, and the ventilation and drainage are sometimes affected by cutting into old levels and underground roads. Hence ancient plans become very valuable; for want of them water may be encountered to excess, or a barrier of unnecessary breadth left because of uncertainty. The High Main, Benham, and Hutton seams, have been found very fiery coals; the Five Quarter seam, on the Wear, are remarkably otherwise, and rather disposed to yield carbonic acid gas. The issue of fire-damp takes place from the fresh-cut face of the coal, by innumerable small fissures, due to the cleavage; larger fissures are found to yield correspondingly larger streams of gas.

These effluxes of gas may, so far as they are regular, be rendered perfectly innocuous, by sweeping the working faces with strong and constant streams of fresh air; but the irregular discharges from jets, or blowers, have been found so large as to overmatch the ventilation, impregnate the air to a dangerous degree, and cause explosion. It is hardly possible to feel greater confidence of safety in any situation than while traversing, candle in hand, the main galleries of a well-ventilated mine. There is no sign of fire-damp; pure air flows in a full steady stream, which, in a moment, extinguishes the incautiously held light, and its cooling effect is fully equal to that of a moderate wind. Proceeding along the minor galleries after one or two "splits" of the current, and entering the workings, this feeling diminishes, the air becomes languid, the warmth increases, the fire-damp issues silently, or with a slightly hissing, or tinkling noise, by myriads of minute threads, or bubbles, and the idea crosses the mind that, except there be 15 times as much atmospheric air as inflammable gas at every point of the working space, explosive combustion may ensue. Accidents have happened from known and unknown causes in the best managed collieries, and there is an impression rather general among intelligent viewers that they must still be counted among the ineradicable obstacles to the satisfactory and profitable conduct of a colliery in a fiery seam.

Before adopting this conclusion, it will be necessary to survey more in detail the mode of working; gather examples of the evolution of gas under different circumstances, discuss the methods of ventilation, and inquire into the precautionary discipline of the mine. Such is the general tenor of Mr. PHILLIPS'S introductory remarks, from which he proceeds to a review of the working processes, as affecting the extrication and accumulation of fire-damp and choke-damp. After a general description of the several modes of working, and the various phenomena of the flow of carburetted hydrogen, the author comes to the following conclusion:—

Without citing other examples, we may safely conclude, from the cases now given, coupled with the general experience of the district, that the process of working in whole coal releases and drains off, for the most part regularly and in manageable quantities, most of the fire-damp which exists, ready formed, in the coal; but exceptional instances occur, especially in the vicinity of dislocations of the strata, where uncommon accumulations of the gas are met with. This gas exists in the coal in a state of considerable tension, so as to burst out, rending the coal, and throwing down large masses in its course, in quantities which overpower the strongest air current, and create fearful danger through great lengths of the underground channels. It is in exploring drifts (pushed forward in pairs beyond the rest of the works), and in the most advanced of the working boards and headings, that the chance of meeting with these eruptions of gas is greatest. The best methods of avoiding evil consequences are,—1, to keep these exploring drifts well a-head of all the workings; 2, to employ in them safety-lamps exclusively; 3, to approach dislocations, by cautious borings a-head; and 4, most important of all, to give clear instructions before-hand, and secure their efficiency by constant and intelligent superintendence.

On the power of ventilation, Mr. PHILLIPS classifies the systems at present employed in the Tyne, Wear, and Tees, under four heads:—

1. What may be termed natural or accidental ventilation; depending upon the tendency, which is very frequently observed, of the warm air of a mine to ascend one of two shafts rather than the other; whether they be sunk to the same or to unequal depths. When there is only one shaft, the air will frequently enter at a level, which in fact may be for such purposes regarded as a horizontal shaft. This tendency is not so strong or permanent as to be free from reversal under particular atmospheric conditions; and its effect, when constant in direction, is subject to variation in amount—the draught of air being least in summer and strongest in winter. Very few collieries are worked in this manner at present, and these only to small depths, and near the outcrop, where the coal is drained of fire-damp. They are, however, liable to choke-damp, which, being extricated from the still shallower "old workings," frequently enters the mine, especially in damp warm weather, during particular winds and other unfavourable states of the atmosphere. The men may then be obliged to abandon work, and leave the mine for a time. In Derwent Main Colliery, the circulation of air was found (in winter) feeble, but there was no sign of impurity in it; the coal cropping out all round, and thus being drained of effluent gases by easy channels to the surface.—2. To obviate the ill effect of these circumstances, and render the workings regular, one of the shafts is warmed in a slight degree by the heat of the "lamp;" that is to say, an open iron grate, set at the base of the shaft close by the "onsetters," who attend to hook and unhook (or slide in and out) the corves or tubs. The effect of this lamp is commonly found to be a current of a few thousand feet in a minute. For example, at Holmside Colliery (in the Five-quarter seam), the current was found to deliver 8900 feet in a minute, and, the day being unfavourable, the air was rather "slack" from passing in its course through old workings adjoining the entrance by level.—3. In the next stage of ventilating practice the natural and accidental facilities for the circulation of air are, in a great measure, disregarded, and replaced by the action of one or more furnaces set to one or more shafts, and constantly kept in strong action by men appointed for the purpose. When seen in a high working condition, as, for example, at the base of the upcast shaft of Lyons' Pit (Hetton), where three great furnaces are kept fiercely burning by the assiduous labour of men, who by much practice, and by the indications of rude anemometers placed near, have a perfect knowledge of the process they regulate—the effect is admirable. Constant, regular, manageable, economical, expansible, simple, and effective, the ventilating furnace of the Tyne, Wear, and Tees, well seconded by a good arrangement of air channels underground, and crowned by a shaft, employed solely as a chimney, is an excellent source of air-movement. Even when the underground channels are impeded, and the upcast shaft is filled with the machinery for drawing coal, or, still more unfortunately, employed for pumping water, the furnace, though then limited in its power, produces more satisfactory results than might be supposed to compel the burning of coke, to abolish the nuisance of the smoke of London. He considers that the comfort, and the saving in *washing*, would compensate for the additional expense. He is even so ungallant as to remark on what he is pleased to term the "personal plainness" of the ladies of London, and says he "saw few beauties, which he attributes to their constantly living in the smoke, like Vulcans." We know not how long our correspondent remained in London; but we think he must indeed have been in a fog, as it is generally conceded that the women of London are as engaging in personal appearance as in any locality in England, or in Europe. We question if they are, taken collectively, surpassed even by the Lancashire witches. A great deal said about the smoke of London is mere twaddle, the parrot-like repetition of a hackneyed saying, without analogy.

Mr. PHILLIPS then gives some numerical statements of the quantity of air circulating in one minute of time through collieries in the districts of the Tyne, Wear, and Tees, the determinations being made by powder flashing, which, except in cases of very low velocities, is sufficiently exact for comparative results, it is observed:—

Let no one infer, from the inequality of the numbers, that the collieries are unequally ventilated. This cannot be known, except by taking into account the area of ground, length of course, height of seam, quality of coal, and many other circumstances which, taken together, make up the work the air has to do. These data vary extremely in different collieries, so that, in fact, some collieries with a small quantity of air are as safe as any, and even more safe than many others with far larger quantities. The two collieries at the head of the list, for example, are, by natural conditions, relieved from almost every source of danger by explosion:—

Collieries.	*Cub. ft. of air p. min.*
Derwent Main	2,000
Holmside	8,900
Black Boy	34,000
Belmont	44,007
Coxlodge	20,000
Castle Eden	42,326
Eldon	19,179
Felling	54,000
Gosforth	16,000
Haswell	100,917
Hetton	190,000
Hebburn	77,005
Heugh Hall	19,200
Holywell (East)	33,778
Jarrow	47,932
Murton	87,056

Collieries.	*Cub. ft. of air p. min.*
Moorsley	25,000
Mickley	12,856
Marley Hill	26,300
Norwood	15,750
Percy Main	54,698
Rainton (plain pit)	39,740
South Hetton	45,840
Thornley	76,331
Tyne Main	34,810
Wall's-End	121,360
Walker	44,800
Willington	66,500
West Auckland	14,478
West Hetton	15,300
Wingate Grange	44,000
Wearmouth	70,500
Seaton Delaval	32,320

In Derwent Main there is no artificial ventilation; in Holmside there is a lamp at shaft foot; at Black Boy there is furnace ventilation; and at Seaton Delaval the steam jet is in use.

Comparison of the quantity of air which circulates in collieries, with the weight of coal consumed in generating the current:—

Colliery.	*Weight of coal in 24 hours.*	*Cub. ft. of air p. min.*
Black Boy	*Tons* 2·0	34,000
Castle Eden	2·25	42,326
Felling	3·6	54,000
Coxlodge	1·3	20,000
Percy Main	3·45	54,698
Thornley	4·8	76,331
Wall's-End	4·45	121,360
Walker	1·488	44,800
Willington	3·5	66,500
Wingate Grange	2·6	44,000
Average	1	= 16,631

In the above list no examples are included of collieries which have underground engines at work. In the three following collieries such engines are at work:—

Colliery.	*Tons of coal per 24 hours.*	*Cub. ft. of air per min.*
Haswell	4, beside engine fire	100,917
Hetton	9, beside engine fire	190,000
Murton and South Hetton	31, beside engine fire	132,895

With respect to the steam-jet, Mr. PHILLIPS considers it certainly a great and manageable power, which appears to deserve consideration, especially in mines which are ventilated by bratticed shafts, or yield enough of fire-damp to render gas drifts necessary, and the furnace action in other ways a source of anxiety.

The following is a general view of the data obtained by Mr. PHILLIPS:—

Seaton Delaval	By the steam jets and boiler fires of an underground engine	74,391 79,359 77,455 85,690 82,320	Cubic feet of air per minute, according to several measures.	
	Previously by furnace action	48,760	ditto	ditto
		53,058	ditto	ditto
Moorsley	By the furnace alone	25,000	Cubic feet.	
	By jets alone	22,000	ditto	
	By both together	31,000	ditto	
Norwood	By the furnace alone, estimated	15,750	ditto	
	By the jets at the base of a staple	31,500	ditto	
	By the jets at the top of the staple covered in	15,750	ditto	
Belmont	By the furnace alone	44,007	ditto	
	27 jets, without furnace	59,956	ditto	
	Engine at rest, without furnace	47,757	ditto	
	27 jets, with furnace	71,895	ditto	
	Engine at rest, with furnace	62,652	ditto	
	Engine exhausting out of 6-inch pipe, without furnace	56,294	ditto	
Castle Eden	By the furnace alone	42,670	ditto	
	By the furnace, aided by 42 jets, the steam taken down from bank 62 fms.	46,706	ditto	
	By the heat of shaft only, the furnace and jets ceasing to act	30,307	ditto	
	By the steam jets alone	35,622	ditto	

In speaking on the discipline of the mine, the author states that the established rules of a Newcastle mine is worthy of imitation; he found no colliery without regular maps, showing the extent and progress of the workings, the courses of the air, and the lines of dislocation. The actual condition of the mine at any moment is thus known to the managers and viewers, by which immediate measures can be taken in case of danger; the strictest rules are laid down, and acted upon in the use of lamps and candles, and rewards are given for the cleanest lamp. The regulations are generally printed, and, indeed, are almost known by heart by the whole of the workmen.

We then come to the division of his report on explosions, containing statistics thereon, and the yearly returns of deaths, the generality of which have previously appeared in our columns. Having called attention to the nature of explosions, and the still greater fatality of the after-damp, it is observed—

The superintending viewer, and the resident viewer, however frequently they may enter the mine, and however complete their knowledge of its peculiarities, require, for the success of their general arrangements, the aid of subordinate officers, trained to acquire and act upon that intimate and instant consciousness of passing occurrences which is necessary for the ordinary working of the mine, and upon the right use of which, in a moment of danger, the safety of the men may entirely depend. Considering the importance of the trust committed to these officers, I have no hesitation in declaring my conviction, that one of the greatest boons to be conferred on the mining interest, one of the surest means for economising industry and saving life, would be the establishment of local mining schools, thoroughly suited to this most valuable class of men. Notwithstanding the utmost exertions of the viewers and subordinate officers, there still remains what is, perhaps, most difficult of all to insure, steady good conduct in the men. The safety-lamp is a precious gift, very little liable to injury, but not proof against ignorance or imprudence. The hewers' occupation is neither so exhausting nor so long continued as to deprive them of all opportunity of gathering knowledge, and it seems desirable that they should be instructed in the circumstances which have an influence on their own safety. To acquire this knowledge by personal experience is exactly what the peculiarity of the case does not require; there have been enough of explosions, burnings, suffocations, and falls of stone, to serve as a basis for abundant teaching and warning. Might not local mining-schools have a department specially suited to the wants of the collier, where he might see the effects of imprudence and disobedience, be gratified by explanations of many facts which he did not understand, and encouraged to prosecute his humble occupation with the satisfaction and self-respect which always springs from and rewards the conscientious and intelligent discharge of duty?

Having thus gone through the more northern field, Mr. PHILLIPS describes the peculiarities of the coal measures and modes of working in Derbyshire and Yorkshire, in the former of which he describes the discipline as good; nor has there been an explosion of consequence in any colliery for many years. Choke-damp is more frequent, but loss of life, even from this cause, is rare. In Yorkshire there have been some severe explosions—as the Ardsley Main, in 1847, with a loss of 73 lives; and the Darley Main, in 1849, with 75 lives. Previous to these they had been very rare for a long time, and Mr. PHILLIPS considers that at present every precaution is taken, and that in those collieries which he has inspected he thinks no danger need be apprehended beyond the control of good management and strong ventilation. Mr. PHILLIPS comes to the following general conclusions:—

1. Explosions in collieries are only possible when certain physical conditions are allowed to concur, in time and place, with certain artificial circumstances; and this concurrence may, in a majority of cases, be prevented.—2. The physical conditions are only in a limited degree subject to human control, but they are not entirely beyond regulation.—3. The artificial conditions are very much under the control of the managers and workmen.—4. It is not so much by other modes of working, new systems of ventilation, or more ingenious safety-lamps, that danger is to be warded from a mine, as by superior skill and unsleeping vigilance in administering the best methods already known, so as to prevent the concurrence of the physical and artificial elements of danger.—5. Two classes of fatal agencies are developed by an explosion; one kills by mechanical violence, the concomitant of enormous expansion and contraction of air the other by the poisonous gases, which replace what was respirable air.—6. Neither of these agencies is entirely beyond human control; the mechanical force can scarcely be resisted, but it may be in some degree directed; the narcotic may be weakened in power and abridged in time, so that restorative aid may be quicker and more effective, by skilful arrangement of air channels.—7. To provide easy and sure means of imparting the due amount of practical and scientific acquirements to the managers of mines, well-appointed provincial mining schools, suited to all the grades and duties of mining officers, are essential.—8. For securing the right use of that knowledge in the actual management of mines, a systematic inspection, under the authority of Government, appears desirable.—9. For the due and useful performance of this duty, so as to do and advise what is right, and avoid doing or advising what is wrong, technical knowledge is indispensable.—10. The mining schools should be inspected with no less care and attention than the mines.

In some suggestions to the commissioners of a precautionary nature, it is observed—

If to each member of the commission a definite district were appointed, he might, with the help of sufficient assistants, exercise in it all the functions of his office, including the giving advice, and offering remonstrance in cases which require it: but the higher function of intervention (which it is presumed would seldom be called into action), to whatever extent it should reach, and whatever form it should take,—whether by an official report to the Home Office, by public notice, or by direct control of any part of the working system,—might be reserved for the concurrent opinion and authority of the whole commission assembled formally for the purpose. By this process three evils will be avoided:—1. The mining interest will be guarded against the undue exercise of power by a single agent.—2. The Home Office will be spared many difficult technical discussions, from which it could not escape were the commissioners deprived of all collective function and responsibility.—3. There will be no necessity for attempting to regulate by Act of Parliament processes which must vary with circumstances that cannot be foreseen.

The following table shows the relative lighting powers of the various lamps compared with candles:—

	Weight of Lamp. lbs. oz.	*Light compared with a candle 6 per lb. with gauze.*	*Without gauze.*	*Compared with a miner's candle 30 p. lb. with gauze.*
Davy's	1 5	9	2¼	4½
Clanny's	2 13	—	3½	1 6-8
Muescler	2 11	—	3 1-16	1½
Stephenson's	2 4½	—	17	6½
Greener's	1 14	—	4	2
Upton and Roberts	2 4½	—	25	12½
Parish's	1 14	—	4½	2½

The above are decreasing values, the candles being called 1—, as it will require nine Davy Lamps to be equal to one candle, six to the pound, or 4½ Davy Lamps to be equal to a miner's pit candle.

These two reports, of which the one now noticed goes the most into the details of colliery operations, and explains in a lucid manner the various causes of accidents, and the steps necessary to prevent them, invests the subject with an interest and an importance which no previous reports, or investigations, ever did; inasmuch as they establish the question, as to whether any system of inspection would be tolerated, or, if tolerated, would be effectual, in the affirmative. Both Mr. BLACKWELL and Mr. PHILLIPS have, in the course of their investigations, met with the greatest courtesy and assistance from colliery owners, agents, and viewers; and they each express a decided opinion that a system of inspection, by thoroughly experienced and practical men, not armed with compulsory powers, and thus to take all responsibility from the owners, but having only the right to inspect, and then to suggest alteration or improvement where they may think it is required, would be met with an equally good feeling, and be productive of much good. The duties of such officers would, therefore, be to see that measures are taken in every colliery for ascertaining the natural sources of danger to which it is liable, and the degree to which the danger may be diverted, or the men guarded against it. They must

ascertain what peculiarly dangerous gases are generated, what means are adopted for ventilation, the rules for conducting the mining operations, and how those rules are enforced. They must form a judgment whether a colliery may be worked entirely with naked lights, or whether lamps should be wholly or partially substituted, and, if partially, where; and, in extreme cases of danger, whether the mine ought to be contracted or suspended. To accomplish these ends, it would be necessary to give them power to enter and examine the workings, to call for plans and sections, and returns of the measured quantities of air circulating through the mine, with the natural condition and artificial arrangements under which the mine is conducted. Where these data do not exist, it would probably be advisable to have a compulsory special survey at the cost of the colliery. There would be few, however, who would not be found willingly to co-operate in such necessary and advantageous inquiries, which would alike benefit owners and workmen.

Now that the reports on the working and ventilation of collieries, and the best means of preventing accidents, of Messrs. BLACKWELL and PHILLIPS, are before the public—reports which more than ever convinces us of the feasibility, as well as the necessity, of establishing a Government revision—it behoves those who profess to be the colliers' friends to agitate the question, and with a pressure from without compel the Government to grapple boldly with the subject, and settle this long deferred, this tardy act of justice. We regret to see that, even in the very heart of our most important coal districts, an apathy appears to exist, which, to us, is perfectly unaccountable. For instance, a few weeks since a public meeting on the subject was convened at Newcastle-upon-Tyne, but was so indifferently attended that an adjournment took place. The adjourned meeting was held last week, the object being to petition Parliament for some measure of protection for the colliers from injury and death in coal mines; again the attendance was meagre, and it would appear that when a number of widows and orphans are suddenly created, much sympathy is immediately expressed, which, however, speedily evaporates, and the adoption of preventatives lost sight of, until the mind is again startled into life by fresh catastrophes. On this occasion Mr. BLACKWELL took the chair, who observed that they had met that day for the adoption of no new principle; there were already inspectors of factories, railways, and emigrant ships, and it was quite as much, if not more needful, that inspectors should be appointed in our mines, in which a quarter of a million of men and boys were employed, and on which above a million persons were dependent for their daily bread. Dr. G. FIFE moved the first resolution, to the effect that, from the great number of lives destroyed in mines, and the consequent affliction and distress of survivors, it was imperative on Government to make some provision with a view to their prevention. Mr. ALEXANDER STOVE, a miner, in seconding the motion, said he had had 30 years' experience at Killingworth Colliery, and he remembered, but too well, the awful explosions at Westmoor, Burradon, Willington, Wall's-End, South Shields, Hebburn, and Jarrow, where, collectively, not merely hundreds, but thousands, had been killed. Yet, it was not by explosions alone that life was destroyed, for where explosions killed their thousands, the carbonic acid gas destroyed tens of thousands. He earnestly appealed to public sympathy on behalf of the miners, who, he said, were an industrious, labourious class, who lived in the constant presence of danger, and of death, to minister to the comfort and welfare of others, and win a livelihood for themselves and families, while their earnings barely enabled them to do so. The motion having been unanimously carried, Mr. MATTHIAS DUNN observed, that while many coal owners took every precaution to preserve the health and the lives of their men, others, selfish and grasping, were careless both of the one and the other. Sir GEORGE GREY had excused the neglect of the Government in not introducing a bill to the absence of the reports of Messrs. BLACKWELL and PHILLIPS; they were then ready to come before the public, but whether a measure would now be brought in, or whether they must wait for another session, he could not say; it was imperative on them to do something immediately. It was discreditable to this country that its mining interests were so grossly neglected. He was not friendly to compulsory measures, which he did not think would be needed; at all events, he would go no farther than to suspend the operations of a dangerous mine, or a portion of a mine. Mr. FAWCETT, a collier, moved the adoption of the following petition to Parliament, and that it be submitted to the inhabitants for signature:—

That your petitioners being residents of this town and neighbourhood, and in the centre of a great coal-field, are feelingly alive to the serious loss of life continually occurring among the miners of this country, many of such disasters having happened in the immediate vicinity of this town.

Your petitioners have also learnt that the health of those working in the pits is considerably injured and impaired, and that hundreds drop into a premature grave, through the inhaling, when at work, an atmosphere highly charged with carbonic acid and nitrogen gases; and evidence has been given to your petitioners that at times even a candle or lamp will not burn therein.

Your petitioners, therefore, humbly submit that proper provision should be made to remove, as much as possible, the evils thus complained of, and that your honourable house will, without delay (as delay in this case is death), pass a law providing an efficient inspection of mines (the inspectors being practical men), and with similar powers as belong to inspectors of factories, railways, emigrant ships, &c., that the frequent loss of life in coal mines may be diminished, and the unhealthy employment of these miners be improved, that themselves and families may enjoy a like consideration as other classes of the community.—And your petitioners, &c.

He regretted the little success which had hitherto attended their efforts, but they had done their best to secure a measure of protection, and had not themselves to blame. Mr. HAMMOND, who had had 50 years experience in colliery operations, seconded the motion, and the petition was adopted, it being also resolved to place it in the hands of Mr. HEADLAM, for presentation to the House of Commons.

We shall be happy to see similar meetings to the above got up in every coal district in the kingdom, for if the colliers and their friends remain quiet and unconcerned, they must not be surprised at Government resting supinely on their oars, or putting off the question to an indefinite period.

In Ayrshire and Lanarkshire the strike still continues, and much distress must exist among the families of the workmen. A meeting of the masters was held yesterday week, when it was resolved that the colliers should not be allowed to return to work at wages over 3s. 3d. per day, with the former output. From the present stocks on hand, and with even the present reduced make, the chances, as we have before stated, are thoroughly hopeless of the success of the men in this competition with the masters. The stock on the 10th inst. was about 240,000 tons, to which add 86,400 tons, for 12 weeks' make = 326,400 tons, from which deduct 84,000 tons as estimated exports, and 60,000 tons for home consumption, gives 182,400 tons, as stock on hand, three months hence. Notwithstanding the strike, the stocks have scarcely diminished, and the price has advanced little more than 5 per cent. In addition to the misery the men are inflicting on themselves and families, they are most seriously injuring the coal trade of Scotland, and the freight on the canals and railways. The price of coals is so enhanced in the port of Glasgow, that no one who can avoid it will purchase for shipment; and even foreign vessels, which formerly went to the Clyde, now take in their stocks from the Newcastle districts. The Irish markets, which have hitherto drawn largely from Glasgow and the west of Scotland, will be obliged to have recourse to Wales, or England, or will, probably, tend to the more full development of the collieries of Ireland. The quantity of coal exported from the Broomielaw monthly has been generally, on an average, from 12,000 to 14,000 tons, employing a large amount of shipping; and if the strike continues much longer, this export trade will be transferred to other districts. It is even alleged that the deputation of English delegates to keep up the agitation, and the ring-leaders in the strike, are in the pay of Staffordshire ironmasters and Newcastle coalowners, to keep up a profitable trade, at the expense of the deluded Scotch workmen. We need hardly take pains to rebut such a charge; the men have solely themselves to blame, and to their acts must be attributed all the mischief.

Having, in the *Mining Journal* of the 1st inst., made some remarks on a plan for injecting atmospheric air, heated from 600 degrees to 800 degrees Fah., into the steam space in the boilers of steam engines, patented by Mr. WILKINSON; that gentleman has thought fit to address the *Railway Record* in reply, in which somewhat rambling epistle, and certainly lame attempt, to refute our conclusions, he accuses us with having merely alluded to the subject, and then "left our readers to judge." Now we only "left our readers to judge" on one minor point of the process—the throwing free hydrogen into the boiler, from the decomposition of vapour in the atmosphere, when in connection with the heated tube; but, as Mr. WILKINSON is so anxious that the subject should be thoroughly discussed, we will repeat our convictions of what the effects likely to be produced are, first, premising that his statement of what transpired at Mr. BURMAN's factory, in Cumberland-street, Curtain-road, where his apparatus was *once* at work, is incorrect; the party applied to there distinctly stated, "I will say nothing about it one way or the other," and when asked if the engine still worked with the apparatus, he replied, "Oh no!" with an ominous shake of the head, which we fancied we could not misunderstand.

Mr. WILKINSON may accuse us of want of liberality in gratuitously criticising his plan, but he may rest assured, and we shall be most happy to have the opportunity of proving it, that if he produces any plan which is really an *improvement* in mechanical or chemical science, we shall be the first to hail the event, and give it all the credit its merits deserve, our *motive* being solely the dissemination of scientific truths. With respect to blowing heated air into the boiler, we are willing to stand or fall on the arguments we used in our observations above alluded to on the 1st inst., and again repeat that it is by no means new, for within the past 30 years we have had patents taken out for working engines by heated air, in some cases in conjunction with steam, by PARKINSON, CROSSLEY, GORDON, Count ADOLPH DE ROSEN, Sir JOHN CAYLEY, BAGGS, HALL, and others, not one of which has been brought to a successfully useful result, the difficulties, in whatever manner the air, heated to 600° or 800°, is applied, arising from the liability of the working parts to be deranged by the great sensible heat destroying the valves, pistons, and cylinders, and carbonizing the lubricating oil. We are advised by the patentee to weigh the question of the different capacities of air and water for heat, and state the different degrees of temperature acting upon each, from a given amount of fuel. This having been done so repeatedly, it would be supererogatory to go at length into it here, and we refer, therefore, to a communication from Mr. BAGGS, in the *Mining Journal* of the 15th Sept. last, as the most convenient at present, in which the estimates of the power of heated air are made upon four different bases, all in favour of air as compared with steam, and yet, strange to say, in practice it has hitherto been found totally impracticable, and its powers neutralised by some mechanical action, probably yet to be discovered, in addition to the effects of the *heat* alone, as mentioned above. When Mr. WILKINSON has proved, beyond all doubt, that his plan of the union of rarefied air and steam is the most economical in every point of view, as an applicable power, we shall most cheerfully acknowledge ourselves in error, and "innocently confess" that "steam is rising from its infancy;" but until then we must adhere to our old fashioned views, that steam, *unalloyed*, is the most economic power, and to obtain that steam economically, the great object is the largest amount of heated surface, with the smallest quantity of fuel, and not the obstruction of the furnace with crooked tubes and currents of cold air, above what is necessary for complete combustion, nor loading the engine with air pumps, every stroke of which would take away from the efficiency of its power.

The exhibition of the electric light, by Mr. STAITE, from Sunderland South Pier, which we noticed in our last Number, appears to have been attended with singular success, and displayed the powers of the galvanic current in producing artificial illumination in a more eminent degree than any previous experiment has done. The only question which now remains to be settled—and it is one on which the whole commercial value of the patent arrangement rests—is, the cost at which this luminary, one which rivals the sun in splendour, can be produced, either on a large scale for lighthouses (to which it is, probably, more appropriate than to any other purpose), or on a comparatively smaller, and correspondingly less costly one, for public institutions, street lights, and domestic use, sufficiently economical to bring it into rivalry with our present modes of lighting? The battery employed by Mr. STAITE, on the occasion referred to, is said to have consisted of 54 pairs, or alternate cells, formed by cylinders of zinc and carbon, and that it is constant, continuous, and regular in its action. Whether this is the battery last patented by Mr. STAITE we cannot say; but as the time is fast approaching when the specification will be published, we must refrain from any comment thereon at present, referring again to the subject when better informed as to the nature and economic working of the battery, upon which depends the success, or otherwise, of the whole process. The mechanism for regulating the distances of the carbon points appears to have been very efficacious.

THE MINES OF IRELAND—No. I.

In our last number we adverted to the metalliferous deposits of Ireland, and the good which would naturally result, in a social and commercial point of view, by the application of capital in laying open her stores of mineral wealth. While it is not our object to advocate any particular scheme in directing public opinion, and the attention of English capitalists, to the mines of Ireland, but having been ever the warm and consistent advocates of *legitimate mining*, we would, at this moment more especially, direct attention to the sister country; and as we expressed our intention of returning to the subject, we propose this week offering some remarks on the county of Cork, commencing with the Ballydehob district. In this locality numerous attempts have been made to work the mines, but owing to the *large* expectations, and the *small* amount of capital employed by the parties engaged therein, the operations were necessarily on a very limited scale; still considerable returns were made. It is a mountainous country, and rich veins, or lodes, crop out in many places at the surface, containing grey copper ore of a rich quality. That those lodes were worked at a very remote period will be inferrred from the fact that, in some excavations, opened from surface, and recently cleared out, were found stone hammers, rudely constructed. Notched pieces of oak, which are supposed answered the purpose of the modern ladder, and various implements, of which the use is at present unknown, but all tending to prove that those excavations were made previous to the introduction or knowledge of the use of *iron*, and, consequently, denoting the high antiquity of this mineral district. We have reason to know, from an undoubted source of information, that a vast tract of mineral property in the district to which we refer, and containing numerous lodes of rich grey copper ore, any of which would yield immediate returns, may be obtained on the most reasonable terms. Here, then, is a large mineral field, waiting only the application of capital to make it a source of wealth to those who may invest in it; but, in its extraction from the barren and rocky mountains, would be the means of diffusing happiness and prosperity amongst a starving population—the artizan, the shopkeeper, the merchant, shipowner, and, in fact, to all classes of the community. We are well pleased to find the attention of English capitalists being gradually drawn towards the district to which we refer; and we entertain no doubt but that we shall shortly see the whole population fully employed, and, furthermore, that those who invest capital will be amply remunerated; for in a country where able labourers can be obtained on easy terms, and where the ore is rich and abundant, and can be extracted without the aid of machinery, a comparatively small amount of capital would, doubtless, perform wonders; and while by its employment it gave the starving population the means of support, would, beyond a doubt, yield a considerable profit. It, therefore, is pleasing to find attention is being directed to the sister isle, and that there is every prospect of capital being embarked in the several mining districts—of which that of Ballydehob, from which thousands of pounds worth of ore have at different times been sold, holds out good prospects—the ore obtained having been raised, in fact, from the surface. From various sources of information, upon which the firmest reliance can be placed, there is every reason to expect that this hitherto neglected, but valuable mineral field, will become a second Cornwall. We do not wish to speak of any mine in particular—our object being with the district in general; but it would be an easy matter to produce statistical returns from the lodes of one, which, if the small amount of capital employed be taken into account, would appear incredible; but proving beyond a doubt that similar returns, with the same amount of capital, have not elsewhere been produced. These points must, however, be left to be discussed in a future paper. The strata generally consists of clay-slate, micaceous schist, quartz rock, elvan, formations, &c. The Ballydehob Mountain range extends in a south-westerly direction a distance of 20 miles towards Dhurode and the Mizen Head Mines; and in the various headlands and lofty cliffs, jutting out into the Atlantic Ocean, may be seen large lodes, containing yellow ore, quartz, gossan, and all the characteristics of great and lasting mines.

In the absence of all political factions and agitation, which have hitherto been the bane of Ireland and everything connected with her industrial resources, we think the present a most favourable opportunity for the investment of capital in her mines, feeling assured that, with due precaution, and an economical system of management in conducting the operations, they would be found a safe and profitable investment. Ireland has been enveloped in a long, dark, and dismal night; but the dawn of a brighter day is at hand, and though reeling from recent suffering and affliction, she will yet rally; while the development of her mineral resources will be one of the principal causes of her regeneration.

THE COLLIERS' STRIKE IN MONMOUTHSHIRE.

The neighbourhood of Newport, Abercarne, and Blackwood has, during the past week, been in a very excited state on this account. The colliers around Blackwood have been idle about a fortnight, under pretence of resisting a reduction of 2d. per ton for cutting coal, purposed by the masters The coal raised at these collieries is used for domestic purposes, and exported to the west of England and Cornwall. In former strikes of these men, they were not accustomed to have any connection with the iron-works, or the steam-coal collieries, the latter coal being principally exported foreign. In this instance there seems, however, to be a more extensive combination amongst the men, and the turn-out for wages is, in part, a pretence to demand a settlement of other imaginary or real grievances. On Monday morning, the colliers of the Abercarne and Gwythen collieries were prevented by threats resuming their work. On investigation these threats were traced to two strangers, who had lately come to the works. These men were at once apprehended for neglect of work, or breach of contract, and taken before the Rev. E. Leigh, a magistrate of the county. Here they now plainly stated they knew they were breaking the law, and they intended to do so, and would do it again—that they had fixed the prices to be paid for cutting coal in the pit they worked and elsewhere. The worthy magistrate, who had a statement of their earnings before him, reminded them that they had been earning, on the average of the past month, of which they complained, at the rate of 26s. per week. They replied that all the men were not doing so, and they would not rest until all were doing alike; the very lenient sentence of one month's imprisonment, with hard labour, was then passed on them. After sentence was passed, a gentleman, unconnected with any collieries, conversing with these men, was frankly told their intention (as a body he, the prisoner, belonged to) was to equalise and fix the price of labour throughout the district. They had calculated amongst themselves that Mr. Powell (a large proprietor in the district) was getting 2000*l.* per annum—that when their plans were fully carried out, they intended to allow him 1000*l.* per annum for his part of the work, and this was ample for him. They stated they belonged to a colliers' union, extending through the kingdom, and they had so far ample funds. On one of these men was found a book, containing a list of names of the class, or division, under his care belonging to, or subscribers to, the union; very few of the names were those of men working in the same collieries as the prisoners. Since these men found employ at the Abercarne collieries, they carefully avoided attending the school and reading-rooms connected with the works, and appear to treat with contempt the mode of instruction there.

A division of the Newport police is stationed at Abercarne; so far the conduct of the colliers has been free from any actual violence, and threats and intimidation are only used. On Wednesday a few men who attempted to resume work at Cwm Tillery were visited by a large body, and came out. Twenty-six collieries are at present standing, and the colliers, to the number of 2000 to 3000, meet daily on a field near Blackwood, to fix their plans. It will be remembered, that Blackwood was the central point of the Chartist insurrection, and the present strike appears to partake, to a great extent, of a political character, and originates in the ignorance of the men, who are duped by mischievous advice. We see no permanent cure for these outbreaks, alike ruinous to the employers and the employed, but education. We shall report further events next week.

THE STRIKE IN WALES—*(From a Correspondent)*.—Understanding that no arrangement has yet been made between the masters and men for the hours of labour in the mines, the men, as a body, still persisting only to work six hours, instead of eight per day, and that notice after notice has been sent from Talargoch, and other six-hours mines, of their intention of meeting at the Milwr Mines, on Saturday next, in large bodies, to compel the agents to alter the rules of that mine to six hours, or, in case of refusal, to use personal violence—now, though I much doubt the correctness of this information, still I understand the agents left the neighbourhood on pretence of business, and it is much feared that they will not return until the men settle this unpleasant matter. It is extremely awkward and disagreeable that the respected agents (the miners' best friends) should thus be compelled to leave their homes, especially where the magistrates are so numerous, and we hope fully alive to all the movements of these misguided men, and only waiting a proper and convenient time to put their power into full effect.

PRINCE ALBERT AND SEWAGE MANURE.—A somewhat curious correspondence, or rather an application, which has not elicited an answer, has been addressed to Prince Albert, by Mr. Dover, of New Spring-gardens, on the subject of a patent taken out by the latter gentleman for the conversion of the sewage of cities and towns into manure, and other objects for sanitary effect, the principle of which patent Prince Albert is represented to claim as his discovery. It appears, that above three years since, Mr. Dover promulgated the facts, and supported them with statistical data, which fully established the value of the plan. On the 29th of April last, to his great surprise, Mr. Dover found that the Prince had transmitted a communication to the Agricultural Society of England, descriptive of a plan for turning the sewage into national wealth, and that Lord Portman informed the council that it was Prince Albert's own plan, and his lordship claimed it for him, which said plan Mr. Dover asserts to be his own, only so mutilated, that instead of preserving the most valuable portion (the ammonia), it is all dissipated. Mr. Dover has accordingly addressed two communications to the Prince under dates of May 4th and 6th last, requesting his Royal Highness to disavow the claim thus unjustly made, and to do justice to the inventor, who states that he has devoted many years to the subject, and that by the adoption of his plans a revenue of fifty millions sterling might be secured to the nation. In the second letter, Mr. Dover respectfully suggests, that unless the public are disabused by the contradiction of Lord Portman's claim, no alternative is left but the publication of the correspondence,—which has now taken place, and which certainly places the Prince in a very ungracious light. If Prince Albert has a well-founded plan of his own, why does not Lord Portman and others who have so stated, as publicly come forward and substantiate it;—while if it be merely a reiteration of Mr. Dover's, and any misunderstanding has arisen from Lord Portman's expressions, let it at once be explained; at all events, common courtesy, which regulates the actions of persons in far humbler spheres, would dictate that, at least, a reply should be afforded to the communications made.

"VALUABLE SECRETS."—A cleaver schemer, signing himself "John Robinson, Grange-road, London," has been advertising in the provincial papers, offering to the unwary, for 10s., to teach any one, who will remit the same, an extraordinarily ingenious art, requiring but a few shillings capital, by which 10*l.* per week could be realised with surprising facility, infallible certainty, and most respectably; and for 4s. he professes to teach another art, as easily and speedily acquired, which will certainly yield 3*l.* per week. We should hardly have thought, in this age of enlightenment, any one could have been found *green* enough to be duped by such a palpably fraudulent pretension; for if 10*l.* and 3*l.* per week could be obtained so easily, the first thing which would strike the least thinking individual would be how it was the advertiser did not keep the secret to himself and obtain the profits. We find, however, at least one individual who has suffered himself to be victimised, and who has written under the signature of "Young John Bull"—a most appropriate one; for surely the John Bulls, young and old, suffer themselves to be most egregiously gulled. For his 10s. he was favoured with a recipe for an unction, composed of resin and tallow, to render leather waterproof, which the waggish rogue calls an "expired patent;" and for his 4s. (he was determined to go the whole hog), he became learned in the art of cleaning old gloves. This schemer teaches other arts, no doubt equally valuable, for considerations, varying from 50*l.* to 500*l.*; and "Young John Bull" wishes his case published, to put others on their guard against being duped.

Original Correspondence.

MINE INSPECTION.

SIR,—Your correspondent, Mr. Richardson, appears to hold a singular theory upon antiquity. I have lately urged attention to the prospals of a new insurance company, which dates its existence within the present year, 1850; and I am in consequence styled a "Conservative"—an upholder of "antiquated prejudices;" and I hardly knew what other "ruthless" things. I considered the views of this company both new and beneficial. I thought it a most desirable and satisfactory acquisition that, in the event of one of those casualties which we deplore, the poor sufferer, by the yearly payment of a few shillings, would have entitled his relatives to the receipt of a sum fully more than the amount of two years' accumulated wages—an amount not only sufficient to evade the misery of immediate destitution, but to supply the means of assisting towards a permanent plan of support. To me the proposals were as novel as they were gratifying; and I think they can hardly be very ancient; for 300 years ago there were not as many colliers in the whole kingdom as now work in a single colliery. This must have caused such a company but an unprofitable existence—whence, perhaps, its unknown obscurity. I am sure if Mr. Richardson will obtain a prospectus, and go through it, and point out to the secretary its antiquated particulars, he will gladly receive his advice. The company must be badly shod to have troublesome "corns" at six months old. The directors can be only too happy to receive hints to improve such a footing, and wipe off the "dust of ages," which has accumulated in so short an interval, and remodel their institution, in accordance with the "spirit of the times," who is, I presume, one of those ghostly inspectors I have treated of before.

I have searched in vain through your correspondent's letter for the *particulars* which I desired, as to the plan of an inspection. He speaks of "a modified form," but does not define it; neither describes what is a "form of inspection," without which "a modified form" cannot evidently be understood. He does not even explain his own plan of a "cramped and limited inspection." Upon the interference of Government in private concerns, as Mr. Richardson *must* have names, I will give him Turgot and Adam Smith as tolerably sound heads, who certainly have "recognised" the principle *as a very bad one*. He can fill up the list as numerously as he pleases; for I feel reluctant to make over free with names, especially as Mr. Richardson has already taxed a formidable array, which he harnesses together as a team, with no other employment but to draw along his opinions—the impression intended being that all this host, *ego et mei Newtoni*, agree exactly with himself. If this be so, it is the much more strong an argument why Mr. Richardson should not withhold his plans, sanctioned by such varied authority. If Mr. G. Elliot is their "strenuous supporter" (not that were it so I could ever consent to accept a name for an argument), I have very greatly misconceived his evidence. Mr. Richardson's own evidence was certainly in favour of his own views; but I am not aware that a reference from himself to himself is conclusive, or that his opinions before a committee carry more weight than in your columns. My own inpression of the results of Lord Wharncliffe's inquiry is very different to these present assertions. I understood it terminated as such inquiries have done before, with a view of the great difficulty of commanding what *shall be done*, when practical men cannot agree as to what *ought to be done*; and the legislators differ as much as the colliers. Each one has his peculiar view as to the form which the enactment should take. Who, then, is to decide when doctors disagree? Dr. Arnott advises the consumption pump from Brompton Hospital. Mr. Gurney would apply his steam jet. This, again (though inclined myself to estimate it highly), other practical witnesses considered he greatly overrated; and now a body has gone to Professor Hann, of King's College, to puzzle over a paradox, which I do not think has any existence. Why, then, such a string of names, as if everything were settled? Had Mr. Joseph Hume a colliery, I cannot doubt it would be managed with the greatest economy and prudence to avoid the tax of an inspector; and were such a grasp of mind as Sir Robert Peel's to condense the energies of its attention within the limits of a coal-pit, we should all undoubtedly derive the greatest advantage and instruction; but this is not the information I require. I want to be told, without circumlocution, what is the plan of inspection of which these gentlemen and so many others are the "strenuous supporters." Whether Mr. Hume in ventilating, or in anything else, might "beat the air," is one point; but that Sir Robert Peel will pledge himself to any measure without understanding it in its minute details, as well as outline, is known to be impossible. Why, then, does Mr. Richardson withhold the important secret which he "strenuously supports?"

I quite agree that, to expect the extinction of danger, and the appointment of inspectors as synonymous events, is "stark nonsense." Mr. Richardson *will* have names. Suppose, then, I name *himself* as one of the fast, if not flowing, writers who uphold that opinion. If the inspectors are not to extinguish danger, what are they to be appointed for? When the tremendous assertion is made, that the lives of a valuable and industrious race are "ruthlessly sacrificed" by the non-appointment of inspectors, what other meaning has it but that inspection would stop the sacrifice and save the race? and how can the race be saved but by the extinction of danger? A mere "*diminution*," and that quite *problematical*, could never warrant even a "bold and ignorant man" in uttering so "ruthless" an accusation. That it is a dangerous experiment to relieve mineholders from the present weight of their responsibility, common sense teaches us; and all I ask is that, in place of declamatory attack, we may be furnished with those reasonable details by which men are accustomed to ponder their course in all important affairs. I wish to see the "diminution" which will result from inspection *proved*, and the manner in which it is to result. I want to be told what the inspectors are to do, how they are to be selected, who they are to be, and who is to judge of their qualifications, so that there may be a better prospect before us than a mere scramble in the dark. The Earl of St. Germans insists that the *inspectors* shall be *directors*. I want something that is intelligible. Did the framers of the bills, brought into Parliament in 1847, and subsequently, derive their nonsense from the "library of reference" which Mr. Richardson names; or did its extent debar them from finding and extracting something else? In either case, it is surely time we had the distilled essence of such a *caput mortuum*. The accidents in 1847 were about 30 per cent. greater than in any previous year; and of these about *half* resulted from causes *totally unconnected with ventilation*. In place of the mere cuckoo note—"inspection! inspection!"—I wish to see its *action* illustrated; and how not only the explosions, which happening on masses attract the most notice, but the solitary casualties, which include the other half of the mortality, are each to be controlled by the inspector. Will it be said that the large increase of 30 per cent. of deaths in the past year arose from a sudden change and deficiency in care and management which came over the whole kingdom in the year 1849? Is this a reasonable supposition? Yet it must be before that increase can form an additional argument for inspection. It is true the subject has been greatly agitated during the past year; and nothing unsettles minds more than agitation. There has been so much praying to Hercules, that it is *possible* there *may* have been less attention to *duty*, and the rein been slacked whilst waiting for the anticipated gift from above. Such an effect is possible; for it is the first step in the consequences of direct evil which are to be expected from Government interference. But it is quite as sound a view to consider the usual course of accidents, which is *irregular*; and their proportion in the present year appears accordingly to be diminished; or was there in the past year an accession of those viewers whom Mr. George Elliot describes as "unfit to be the working men in the matter?"

In Mr. Elliot's evidence, claimed by Mr. Richardson as one of his "strenuous supporters," we find the following passage:—"With respect to the fact of suggesting, supposing the inspector comes and suggests to me, 'You have too little air in this district of the colliery;' I say 'I am quite sure I have quite enough.' Next week, a bag of gas comes off, and we have an explosion, which would not have been prevented by a larger quantity of air; an accident has occurred, and the blame comes upon the colliery owner, for not having adopted the inspector's suggestion; that is one of the difficulties I see." These are the words not of a declaimer, but of a man of sense, and are pregnant with instruction to all who wish to learn. Accidents are not subject to laws—at least, not to the laws of Parliament. Further on, he remarks—"The fact of suggestion would operate just as powerfully upon the sense of responsibility, if a man were alive to his duty, as if it was an order. I could not live under the responsibility of a suggestion." This conscientious sensitiveness has induced some persons, under the clamour against them, to yield up their fixed opinions of the evils of Government interference, that they may not endure the responsibility of the suggestion. Were I the owner of a fiery colliery, I might shrink from actively denouncing, as I do, the mischief of the system, yet without my opinions being changed. Burdened with the great anxiety of such a work, I might say to my neighbour, "It is too much to be taunted for doing the best, and to have to bear both the anxiety and the abuse. Let us hope the mischief may prove as small as possible, and yield up the reins and the responsibility to these Phaetons, who are so hot to drive." It is thus that clamour, and the "*calumniari auduciter*," often bring error to prevail; and to show how entirely Mr. Richardson misrepresents, in his condensed abridgement, the evidence before Lord Wharncliffe's committee, as to the state of opinion, I refer to the evidence of Mr. Bemjamin Gibbons, one of the soundest authorities in Staffordshire, as a proof of my previous allegation, that the views of such characters have *not* changed in favour of this pernicious interference.

I hear with great regret that, in any quarter, there should have been exultation at the terrific explosion in Belgium. Such feelings are most reprehensible. The event is a serious and melancholy proof of the inherent danger of the occupation after every device is resorted to, and induces deep reflection on the impropriety of stirring up busy and ungrounded hopes. Such dangers ought not to be tampered and trifled with for mere speculative or political considerations. I must repeat that, from Mr. Tremenheere's report down to Lord Wharncliffe's last remarks, I can find no better reason than I have already given for adopting the foreign practice. It is said it exists abroad satisfactorily; therefore, we should adopt it here. It is asserted, though I should much rather see it *proved*, that it has there diminished the proportion of accidents. It is far more easy to demonstrate that the early management of foreign collieries was *deficient*. The extensive working of collieries abroad is quite a new thing; and that they should get wrong at first with the novelty was most natural. A further weighty reason is, that foreign Governments are greatly interested in the mines—making it a duty they should take a share in the expense and management of their own property; and not to do so is a direct negligence, from which wrong must necessarily supervene. Previous to the Belgic revolution, the King of Holland was a *half partner* in the extensive iron-works and collieries at Seraing. Such a position naturally leads to the appointment of agents; and the foreign inspectors are often, in fact, nothing more than the head viewers, which we appoint for ourselves in our private concerns. Were the British Government in partnership with our coslowners, the case would be entirely altered; and it would be most proper that none of the owners should neglect their part in the cost and the responsibilities of the management. That "circumstances alter cases" is always overlooked by ardent importers. Some years since, we were dinned with "Prussian education," overlooking every particular on which it was based as a measure of police and military organisation. *We are not likely to be teazed with it again.*

In the same way the essential differences of foreign mines are overlooked, under the infatuation that the far-fetched fowl *must* have a fine feather. These things abroad are jogged on, at every step, by Government assistance, and salaries eked out by public money; we manage differently here. A crutch is a help to a lame man, but why should those who have the perfect use of their limbs consent to hobble on crutches? As to Mr. Richardson's very simple question, respecting "any four mines in the world," I will reply by another, not I hope so simple—where "in the world" are the coal mines to be found of such duration, extent, and importance as ours? I fear there is something more than simplicity in the remainder of his remarks, where he quotes the late Belgic explosion as a "*solitary instance*," and then counts numbers against four tremendous explosions, selected from a district, in whose calamities the whole world may be said to have served its apprenticeship. It may be very grateful to some minds to heap obloquy upon the colliers of the north, but they have been, in fact, the pioneers of civilisation.

Mr. Richardson is quite in error in supposing I have *insinuated* that inspection is advocated from selfish motives. I have made a straightforward assertion of the undoubted fact. It is so plain, when new offices are to be created, that multitudes must be looking forward and upward to the chances of filling them, and add their voices to recommend what they desire, that it is mere labour lost to attempt controverting so obvious a position. But Mr. Richardson may establish his own impartiality, and that is as much as any wise man will be answerable for, or more, by declaring that he has no views whatever upon an inspectorship; on the contrary, that were he offered an appointment in South Wales, he is firmly resolved to decline it. The refusal might, or might not, be a loss. I have no knowledge of Mr. Richardson, except from his writings in your columns. One of these certainly recommended a plan of ventilation which, were it enforced by authority, would turn the principality upside down; and that a name may give force to an opinion, I should say that to compel Mr. Deakin, of Blaenavon to adopt it, would lead to a very decided explosion. I cannot discern the point of the "leading man and *treasurer's*" letter, which, considering the writer's name, ought rather to have been addressed to *Punch* than to the *Gateshead Observer*. If Mr. Richardson acknowledges *any* "antiquated prejudice," it must be in favour of the sect of the "nominalists;" but to a "realist" the name of Martin Jude carries no more conviction than that of Judy Martin. The concluding sentence, however, proves, and that is, perhaps, the object, the allegations I have made before respecting agitation. My own experience is this:—Working colliers have a fund of good sense. If the agitator comes and tells them that Government has a set of clever fellows in London, who understand their business better than they do themselves, they ridicule the idea. To get up an efficient agitation something must be said about *wages*—more money for less work; they can credit this more readily than their ignorance of their own calling. Hence an eight hours' bill, to get up the steam, on which I need say nothing, as Mr. Richardson evidently understands it, and will only wish the stomachs of the Lanarkshire colliers safe out of the keeping of Mr. Wyld, and their other *friends*. I hope I have now given sufficient names in conformity with Mr. Richardson's views; if I have been forced to say anything disagreeable, he will, of course, bear patiently the "recoil" he has himself explained to us, must follow from general charges, much more when hard words are fired in them. But for his antipathy to the dark sayings of experience, I might sum up the whole question of Government interference in pithy adages, comprising the respective episodes of too many cooks and two stools, but they have the misfortune of being homely as well as old.—DAVID MUSHET: *June* 3.

MINE INSPECTION.

SIR,—My attention has been drawn to a letter headed as above, and signed by Mr. Evan Hopkins, wherein he seems to deprecate any attempt by legislation to remedy the constant occurrence of fatal accidents in mines; and he begs the question, by demanding "whether any man of experience and judgment will take upon himself the heavy responsibility of preventing accidents in collieries by mere casual visits?" and he cannot conceive it possible "that the occasional visits of an inspector could stop accidents, which the managers themselves are unable to do." This is strange language for a practical and theoretic miner, such as Mr. Hopkins, to use; he does not seem to be aware that all the great viewers and mine engineers do their business, and maintain their high characters, by means of casual inspection; otherwise, how could this and that person stand on such elevated ground as mine ventilators and mine conductors. If, as he says, "Government students," under the title of inspectors, were to be the judges and checks against the practical miners, then, indeed, I think there would be some ground for his apprehension; but if he will read the examinations before Lord Wharncliffe's committee, which he adverts to, he will there see that every one objects to inspectors of that class, as also do Sir H. De la Beche, and other Government Commissioners, who expressly deprecate the appointment of "inexperienced and overmeddling individuals."

The question to be solved is this:—Would parliamentary interference, supported by proper functionaries, and under wise parliamentary regulations, tend to the saving of life? If Mr. Hopkins says no, then he differs from every witness who was examined upon oath on Lord Wharncliffe's committee. It seems strange to pass a general censure upon Government inspectors, because Mr. Hopkins and his compeers might happen to be selected for the purpose.

Mr. Hopkins says that "Messrs. Dunn and Richardson were unable to make good their arguments before the committee, because they could not devise a remedy." Now, Mr. Hopkins cannot have read with attention the evidence, otherwise he would have discovered that I produced something considerably stronger than mere opinion; for I showed, by facts and correspondence, that certain catastrophes, both by water and inflammable air, were foreknown, and were allowed to happen, because of the want of some authoritative persons to interfere, and stop the calamities, and that those calamities involved the loss of a great number of lives, and many thousands of property. If Mr. Hopkins calls this failing to prove the advantage of inspectors, I do not appreciate his mode of reasoning. It is further maintained by practical persons like Mr. Hopkins, as well as such men as Sir H. De la Beche, that, in addition to the saving of life, it would be the most effectual means of extending improvements, and of economising the working of mines. However, I am glad to see the subject discussed by such persons as Mr. Hopkins, for such discussions will pave the way for a sound consideration of this highly important subject.

June 13. MATTHIAS DUNN.

SULPHUR FROM COPPER AND IRON PYRITES.

SIR,—Some notices of the sulphur trade in Sicily, which have lately appeared in the *Mining Journal*, and your remarks, last week, on the mineral resources of Ireland, induce me to offer a few brief suggestions. It has long appeared to me a pity that the manufacturers of this country should send to Sicily for a supply of sulphur, while the minerals of the United Kingdom contain such an abundance of it. I have frequently endeavoured to direct attention to this subject, but it is generally received with something to this effect—"Pshaw! sulphur is of no value." A great to do is made about separating silver from lead, but the value of the sulphur annually consumed in the branches of manufacture where it is made use of must be very much greater than that of all the silver extracted from lead throughout the United Kingdom. I am not in possession of the requisite data to give an idea of the relative amounts, but have an impression on my mind that sulphur is fourfold that of the silver. It would be interesting if you, or any of your correspondents, could furnish the particulars.

In the year 1839 I was engaged in some experiments, upon a good large scale, by the assistance of a gentleman in this part, for devising the means of recovering sulphur in copper sheathing. I obtained very pure sulphur by three separate processes, but neither of these was directly applicable to current-going works without great stoppage, expense, and derangement in the existing order of things. I was perplexing myself to contrive a practical modification of my plans when my friend, being in London, was introduced to a very expert French chemist, who undertook to do the thing off hand; I was superseded, and my plans have ever since lain in abeyance. I have had no opportunity of working them out, but have been ever on the watch to collect facts, to assist me in bringing them to maturity. By an entirely new system of smelting copper, sulphur may at the same time be obtained; but for the existing works, I recommend that the sulphur should be retained in the slag, and the latter be treated so that it may yield sulphur in a subsequent operation. Several new smelting-works have been established, but these, to all appearance, trudge on in the old track, throwing their sulphur into the atmosphere, and separating the slag from the copper by skimming. I believe they try to make a near cut, the cause, I have been told, of the unfortunate failure on Bow Common. Copper was to be produced for the refiner by two processes. The refiner insisted upon having the metal quite free from slag. Scylla was to be avoided, so they run into Charybdis: 20,000*l.* worth of copper is lying as refuse on Bow Common. Leaving copper smelting out of the question, I refer now merely to the treatment of sulphuret of iron to obtain sulphur. When pyrites, or mundic, is exposed to a low heat and a slow current of air, sulphurous acid passes off. I found, in 1839, that iron decomposed perfectly dry sulphurous acid at a low heat, and I thus obtained very pure sulphur in fusion. Since that period I have had some experience in the treatment of the rich ores of iron, and feel satisfied that a preparation of iron may be cheaply had to mix with the sulphuret, in such proportion that the mixture, confined in a suitable kiln, connected with a condenser, would yield pure sulphur and oxide of iron—the latter available for the manufacture of iron. When metallic sulphurets are acted upon by the compound gases, formed by vapour of water and air passing through a dense body of highly ignited carbon, the metal is reduced, and sulphuretted hydrogen passes off. This may be made to yield sulphur and ammonia, the latter requiring an acid to fix it. In alkali works this might be done by the muriatic acid; but I recommend the burning of the sulphur to form sulphate of ammonia, and that this should be used to decompose salt, yielding sulphate of soda and muriate of ammonia. By far the largest consumption of sulphur is for sulphuric acid, and this being a bulky article, and its transport attended with risk and difficulty, is manufactured chiefly on the premises where it is required to be used, as in alkali works. For this purpose mundic may be, and is, to a certain extent, used, but objections are started. It is said that only a portion of the sulphur is really available, and that arsenic, more or less, is always present. In my opinion, if a blast were used, the whole of the sulphur could be made available. By passing sulphurous acid through dry chambers, or flues, to cool it down, all arsenic would be deposited. After this let the sulphurous acid meet a stream of pure heated air before coming in contact with steam, or water; pure sulphuric acid may be formed from mundic, without using nitre.

Llanelly, June 11. T. H. LEIGHTON.

REPTILES NOT "BREATHING" ANIMALS.

SIR,—Connected with those principles on which you gave place to several papers in your widely circulated Journal, from Aug., 1849, to Feb. last, there is a question of very considerable importance to natural history, on which the naturalist appears to be in the dark, it being taken for granted that the operation of breathing, so indispensably necessary to the warm-blooded animals, is also essential to the cold-blooded, or reptiles; and whilst it is assumed that lizards, frogs, toads, &c., breath air freely, to the fish is assigned no greater amount than is contained in water, although latterly the property of decomposing the water itself has been attributed to the finny tribe; but, if such were the case, it is clear that the operation would not be one of respiration, but approaching to combustion, since water is composed of eight parts of oxygen to one only of hydrogen. The process of respiration, in warm-blooded animals, consists, as most people are aware, of taking into the lungs air—a *chemical compound* of one part of oxygen to four of nitrogen—and in expelling carbonic acid, nitrogen, and the undecomposed air, about one-eighth of the oxygen taken into the lungs at each inspiration being consumed in purifying the blood, by the abstraction of a portion of its carbon; and to this process is referable the maintenance of the superior temperature in our system.

In Knight's *National Cyclopædia*, now in course of publication, we are informed, or told, that the process of respiration is the same in the cold-blooded as in the warm-blooded animals; that, in the latter, the venous blood is changed to arterial, and is thus rendered fit for the maintenance of life; but whether or not respiration performs the same function in reptiles, the writer has omitted to mention, possibly from want of information. I maintain, on the contrary, that, in this class of animals, there is no "respiration" whatever; and the following experiments on a very young toad, although they terminated fatally, I think will go very far to establish my position. A fortnight since, the little animal was put into a six-ounce bottle, the bottle was then filled with carbonic acid, by displacement, and closed with a bung. At first, much uneasiness was manifested in an attempt to get out of the bottle, and in about two minutes he became prostrate. When he had been in the gas about half an hour, the bung was removed, and the gas poured out from the bottle; after which, animation was restored in a few minutes. The experiment was repeated, with the difference only that the restoration to life, the second time, was assisted by the application of a cold-water bath, the operation of which was almost instantaneous; the water was decanted, and he was left till the following morning to recover any strength he might have lost. The bottle being again filled with gas, by displacement, tightly corked, and tied down with wet bladder, and the animal, as before, being prostrate, I placed it in the shade, under a lean-to, and observed no change throughout the day; but, at 10 o'clock (12 hours after his being shut up), he had become perfectly lively, and *apparently* much pleased with his position; I therefore left him in the enjoyment of it for 48 hours more, *being in all* 60 *hours*, when I tested the bottle for the presence of the gas, and to my astonishment found it had departed, certainly not through the cork and bladder; but as he appeared to have voided some excrement and urine, I considered the gas might have been absorbed by them. I then thoroughly cleaned and dried a well-ground stopper bottle, of the same dimensions, and transferred the young gentleman to it; filled again, by displacement, put in the stopper, and tied it down with bladder; and, being prostrate, he was restored to his former berth under the lean-to. At the expiration of 48 hours of confinement, not observing any change whatever, the stopper was removed, the gas discharged, and a little water put into the bottle. In half an hour the eyelids distended, and shortly afterwards the eye became beautifully bright, and the sides of the body, which on each occasion of dosing became much contracted, gradually distended; he, however, did not recover the effects of this last experiment, and expired, but at what particular hour I am unable to state. I may observe, however, that when I filled with gas the stopper bottle, and closed it, a rapid condensation of vapour took place on the inside, the animal, as a gentleman present observed, being in a "great cold sweat;" it is not, therefore, improbable that this operation may have gone on at each experiment; and, if so, the exhaustion alone would be quite sufficient to account for death; and I suspect that the water which I considered at first to be urine, when the animal managed to get rid of the gas,

was generated mainly as vapour. The question is, however, a very interesting one, and having been promised a liberal, or unlimited, supply of toads and frogs, I intend to pursue it farther. FRANKLIN COXWORTHY.

Westminster-road, June 10.

WILSON'S PATENT WIRE ROPES.

SIR,—In consequence of having seen an anonymous paragraph, in your paper of the 8th inst., respecting one of Mr. J. B. Wilson's patent wire ropes, I beg to furnish you with a few facts, from which you will see your information is incorrect, and has only been forwarded for the express purpose of doing Mr. Wilson an injury. The rope in question is composed of 72 wires, and not 48, as stated by your informant; and my opinion is, that the rope was much too light for the weight it had to wind. In addition to this, when it was first put to work, it met with a serious accident, which I have no doubt would have rendered a stitched wire-rope useless. Your informant evidently wishes the public to understand that it is no longer fit for use. I beg to state that such is not the case; but in consequence of seeing a few wires broken, I, as manager of the colliery, thought it advisable to remove it to another shaft, where the men would not have to ascend and descend by it. In conclusion, allow me also to say that I am so satisfied with the form of the rope, that I have ordered a second of the same description. THOMAS WHALEY.

Ince Hall Colliery, near Wigan, June 13.

[We have also received a letter from Mr. J. B. Wilson himself, respecting the same statement—the insertion of which we are compelled to postpone until our next Journal.]

MODELS OF BRIDGES FOR RAILWAYS, &c.

RESPECTED FRIEND,—Permit me to offer a few remarks upon the several models of bridges, &c., which you have so kindly permitted to be exhibited at your establishment.

No. 1 represents one-half of a design for a bridge, 140 ft. span, 12 ft. wide, on the principle of the one I projected for Clifton, at an elevation of 210 feet above high water, span upwards of 600 feet, which I proposed to erect without the aid of fixed scaffolding or centreing. This model is on the scale of one-eighth to an inch, or 1½ in. to the foot—being one-eighth of the full size; consequently, multiplying by 8, and by the square of 8, we may arrive at the actual weight of the superstructure. The wrought iron in the said model is about 56 lbs., which by the rule stated makes the amount of wrought iron required about 25 tons. By multiplying its load by the same rule, then 1 cwt. on the model bridge will represent a load equal to 50 tons, or 2 cwts., 100 tons. Such a structure may be made for from 4*l.* to 5*l.* per foot run, and from 30 to 50 feet long, at from 30s. to 50s. per foot run, and are peculiarly adapted for parks and pleasure grounds.—No. 2 represents an inflexible suspension, on the principle of the one I designed and erected at Twerton, near Bath, 10 years ago, and is allowed by competent judges to be the firmest suspension bridge of its dimensions (about 240 feet long) ever erected. It is made on the scale of 1 in. to the foot; consequently, by the same rule, as before mentioned, 1 cwt. upon it will represent a load equal to about 86 tons on the full-size structure.—No. 3 is a model of an under-suspension, on the scale of 2 in. to the foot, representing a bridge, 50 ft. long, by 15 to 18 ft. wide. This plan is the most economical mode for constructing bridges, and is peculiarly adapted, when headway is not an object, in marsh or swampy districts, as they do not essentially require masonry for abutments, or support, as balk or strong planks, properly fixed on the banks of the river, or brook, will be even better than masonry of ordinary descriptions, besides being much less expensive; at the same time, affording greater positive security. A bridge of the above description, capable of sustaining with perfect safety a uniform load of 50 tons, would require about 2 tons of iron, which I could get manufactured, ready for fixing together, delivered in London, at less than 15*l.* per ton; and, therefore, I have no doubt but that carriage bridges, as above described, may be constructed, including timber, iron, and labour complete, at from 25s. to 30s. per ft., or even, in some cases, much less. They are, therefore, most peculiarly adapted for agricultural and colonial districts, as the iron-work may be made, and the several parts numbered, so that an ordinary carpenter, by means of a working drawing, may construct such a bridge either at home or abroad; and as the iron-work would occupy but small space, it may be taken abroad or to the colonies almost as ballast.—No. 4 is a model of a bridge, proposed to be constructed with boiler-plates, representing a bridge, 100 ft. long. The combination is much more *effective and simple* than any plan I have ever yet seen, though *necessarily more costly than any of the preceding plans* described.—No 5 is a model of our patent *continuous timber railway*, peculiarly adapted for agricultural and mineral districts, showing a mode to avoid the expense of ballasting, saving one-third of timber, and two-thirds of iron, avoiding cross sleepers and cast-iron chairs, yet obtaining greater firmness and stability—a line for 12 miles on the plan I am now engaged upon, which I feel confident will be effected in a very substantial manner, including *timber, iron, labour, stations, bridges, &c., complete*, exclusive of land, at considerably under 2000*l.* per mile; and thus give the probability of a railway, like the American ones, making a return of from 10 to 15 per cent.—T. MOTLEY: *Stangate, Lambeth*, 6 *mo.*, 12.

PARSEY'S COMPRESSED-AIR LOCOMOTIVES.

SIR,—The inventor of steam-engines gave the public the benefit of that power. The benefit to be derived from air-power is placed at the command of the public by the patented invention of compressed-air engines. The national institution of railways makes the use of mechanical power indispensable to work them; so that steam, or other equal power, must be had. A period of nearly 20 years has given time for improvement, and proof of the expense of working lines. The late investigations and audits have shown the *real* state of affairs, and no idle alarm pervades the homes of thousands of proprietors. On a dispassionate and disinterested view of railway business, any man judging on business principles must see that the present system cannot be maintained. This national business has been entrusted to the directors of companies, upon the vast capital advanced by proprietors, who, not having been initiated, like the old carriers and proprietors of coaches, into all the experiences of trade, have had to trust to the speculation; and such ample means having been put into their hands to carry out railroads, have done as capitalists in business often do, who have more money than precautionary knowledge—gone too fast.

It now turns out to be like a man who, having spent all his money upon his establishment and stock, has lived on his stock and profits, and finds, at the end of a time, that the profits have not been sufficient to pay current expenses; and his capital being sunk and gone, he has no means left to work his establishment with, or a chance of recovering his sunken capital. Two hundred millions have been sunk on railroads; that capital is gone, and the profits are not sufficient to maintain them, work them, or pay dividends. Borrowing additional capital is only encumbering the estate with unredeemable mortgages, unless traffic and profits can be raised to such an amount as will meet current expenses, and leave an overplus for the redemption of capital and the payment of fair dividends. But there are no grounds of expectation for so indispensable an increase of traffic, or that there may be a possibility of profits as a basis of security for investments, and a fair rate of interest.

Without entering into all the items of railway expenditure, steam-locomotion is the means of working them. Carriers' horses ate corn, hay, &c.; railway engines eat cash. If they eat too much, and are dearer than horses, railways cannot carry profitably; and, as with coaches and waggons, if too expensive, they must lose, and be finally a ruinous concern. As the case stands, like men of business, directors and shareholders should endeavour (although, like the national debt, it may take a very long time to redeem) to avoid an increase of sunken capital, and ensure to themselves an interest from *profits*, as the national debt does upon the revenue of *taxes*. Steam locomotives are as beautiful and efficient as they are costly, but from the necessity of their carrying *destructive furnaces*, entailing heavy expenses for constant repairs and injuries done to goods, passengers' luggage, &c., capital and profits are consumed, and there is no remedy for the sacrifice of such costly machinery and its incidental charges.

This business view is not presented to excite unnecessary alarm, but to open the eyes of the public to the real state of railway business, which, if clearly seen and taken in time, may sooth many an aching heart. Compressed air can have no such *destructive* effect on capital, or the less costly machinery; while the same working power can be had from it. The same lines of rail, &c., are ready. The only alteration would be the putting of air locomotives on as the steam ones are burnt off. The expensive parts of steamers do not wear out, but are destroyed by expensive heat. The fact cannot be denied. Certain interests in maintaining that system (so prejudicial to the great vested interests of shareholders, not having it in their power to deny the practical efficiency of the patented air locomotive) deter the public and the great body of proprietors from embracing the national boon presented at this crisis, by whispering the allegation, founded on no data or practical experience, that "the difficulties and expenses will be too great to make compressed-air locomotives advantageous." A trial is the only denial of the insinuation that can shake the confidence of the numerous parties interested in railroads in assertions supported by no name, nor attested by any responsible authority; however, that prejudicial notion, for it is but a notion, prevails at present, which, from the industry in circulating it among society, evidently shows the *economical* merits of air-power, and the patented air locomotive, or ere this there are sufficient practical and interested authorities that would (by their names and reasons) have exposed the fallacy of pretending to substitute compressed air with efficiency and economy. A small engine, always charged with air, ready to start on a rail, may be seen in action at Oxford-street.—A. PARSEY: *June* 6.

[For remainder of "Original Correspondence," see page 279.]

THE IRON DUTIES OF UNITED GERMANY.

In last week's Journal we stated that we had received from a correspondent a translation from the Report made by the Committee appointed by the Frankfort Parliament in 1848 and 1849; from which report, among other recommendations equally important to British interests, we have extracted the following remarks, suggestive of the changes to be made on coals and metals under the, at that period, proposed revised tariff, to be applicable to the whole of Germany. The subject is one of the first importance to the manufacturers of this kingdom; for, enormous as the import charges are on foreign metals and manufactures transmitted to the German states, their manufacturers are still clamouring for a higher scale, and it behoves parties interested in this country to make a move for raising a counter impulse, and establish a basis towards that freedom of commerce, of which England has so nobly set the example. The "Suggestions for the Tariff of Germany," to which we have alluded, after observing that the manufacturing industry ought not to claim any further customs' privileges against the competition of the foreigner above the fiscal duty, shows that it is but a fair demand that the raw material, and the assistances necessary for manufacturing industry, should not be increased in expense by entry dues, and also that articles in a half-manufactured state, absolutely indispensable for important inland branches of industry, should only be liable to trifling imposts, goes on to say:—

"In the tariff of the Zollverein, the Steur Verein, and of Schleswig Holstein, this has, until now, always been the rule, and the alterations we propose on the present amount of duties are as follows:—

	Present duty.		To be in future.
Coals	per cwt.	1½ grochen ..	Free.
Lead		7½ „	„
Copper, tin, and brass		15 „	„
Pig-iron		10 „	„
Spinning machines		2 per cent.	15 grochen.

It is probable that an outcry against these alterations will only be raised in the cases of iron and spinning machinery. Pig-iron was formerly duty free in the Zollverein, until most unaccountably, in 1844, concessions were made to the strong solicitations of the ironmasters to an extent of 10 grochen per centner, equal to 22 per cent. on the average price in German ports. The result of the measure, however, clearly proved its inefficiency, for the import of foreign pig-iron has by no means decreased with the imposition of the duty, or been replaced by the produce of inland works. The only consequence of this duty is to increase the expense of one of the most important raw materials; and as the inland iron trade is dependent on foreign sales, it has to compete with the great commercial power of England and Belgium. This sale to foreign countries was, in 1846, 167,752 centners, which speaks emphatically against the continuance of the iron duties of the Customs' Union, and the artificially raising the cost of this article of such diversified and general use, through which the duties probably injure all branches of industry. The taxing of the community for the benefit of a few is just the soul of the protective system; but it is a mere pretence that the inland iron trade must be ruined without the protective duties now existing. It is shown that, from 1836 to 1841, when pig-iron entered free of duty, and manufactured iron was much less taxed, the produce of pig-iron in Prussia rose 30 per cent., and bar-iron 60 per cent. It is a most unfair proceeding to compel the German coast districts to take their requirements of iron from the Rhine provinces, or Silesia, which land carriage renders disproportionately expensive, instead of allowing them to obtain it by sea, and thereby also give employment to shipping. Without the protective duty, the iron trade of the interior would have existed just as well after the price of iron began to rise in 1844 as it had existed and increased before—consequently, this protective duty, which places at more or less disadvantage the whole population, was not necessary, and has only served to increase the gains of a comparatively small number of ironmasters. According to computation, an iron-bound Dantzic vessel is increased in expense by these duties to about 9 per cent. of the whole cost of the vessel, and all other manufactures in proportion.

"For the general interest of shipowners, shipbuilders, &c., these circumstances require particular consideration—viz.: that for some years past almost only iron steamers, and in England also sailing vessels, have been built, and if the necessary material is thus rendered unattainable by protective duties, the German navy and national shipbuilding interest cannot avail itself of these advantages; while the freeing pig-iron from all imposts, and putting a moderate duty on wrought-iron—say, 10 grochen per centner, or about 10 per cent. of its value, instead of, as in the Zollverein, 22 and 38 per cent. respectively—would make an important change in the commerce of the country, and lay the principal foundation for a complete revision of the whole system of duties."

It cannot but be a source of great regret, that recommendations so important to the industry of both countries should have received so little further attention, partly in consequence of the breaking up of the Frankfort Parliament, and principally in consequence of the political state of Prussia requiring all the attention of her Ministry, until the present moment, when, from the circumstance of M. Van der Heydt being Minister of Trade, and connected with large manufacturing establishments in Westphalia, the parties seeking for increased duties have in him a powerful friend, as is shown by the proposals already promulgated, that cotton twist, and other similar manufactures of cotton, should be oppressed by increased import duties. This tendency to increased duties is sufficiently alarming to the agricultural districts of Prussia, which number three-fourths of her inhabitants, and pay three-fourths of her taxation, that they are everywhere co-operating to defeat this and similar measures, and they cannot but receive the aid and sympathy of this country; and they calculate that, as soon as this struggle for commercial freedom is known in England, they will receive from every one interested (and who is not?) substantial assistance.

ENCOURAGEMENT TO EMIGRATION.

In the *Mining Journal* of 16th March last, we noticed the provisional registration of the Universal Emigration and Colonization Company, the prospectus of which also appeared in our advertising columns of the same date. Since that period, the United States Land Company, on which some observations will be found in the Journal of 27th April, has merged into, and become consolidated with, the former company, by which measures are now taking for immediately organising the plans of both, and for the Universal Emigration and Colonization Company proceeding to complete registration with the utmost dispatch. The general objects of the company may now, therefore, be considered to be, in addition to, or in connection with, the promotion of emigration and colonization, upon a more practical and comprehensive system than hitherto attempted, the purchase of large tracts of land in the British colonies and United States, their subdivision, settlement and sale on the most advantageous terms to emigrants; the establishment of a general agency for emigrants in London, Liverpool, Glasgow, Bristol, &c., where every information may be obtained as to supplies necessary, climate, agricultural implements, passage, &c. The encouragement of local associations for collecting a fund, by small weekly subscriptions, for emigration among the poor by rotation, and the protection of the poorer classes of emigrants from the system of plunder and imposition to which their helpless condition has hitherto subjected them. With respect to the purchase of land, the emigrant will have immediate possession, and an absolutely sound title be guaranteed to him. To hold out to honest and industrious farmers, who may not be at first capable of paying for the fee simple, an inducement to emigrate, a system of life assurance is adopted, by which, on payment of the rent charge and the annual premium for insuring his life to the amount of the freehold, he is placed at once in possession of his land. Thus, a person aged 30 will receive the absolute freehold, in fee simple for himself and his heirs, of a farm of 300 acres, valued at 100*l.*, on paying annual rent 6*l.*, annual premium for life assurance on 100*l.*, 2*l.* 10s.—8*l.* 10s. per annum. By another arrangement, the purchaser may complete his purchase by certain payments, and the land becomes his own at the end of three, five, or ten years, according to circumstances. A periodical paper, called the *Messenger*, is published every fortnight, under the supervision of the company, the first number of which we have received, and contains matter of much interest to emigrants. The company's agents in the British colonies, and in New York, Philadelphia, New Orleans, Baltimore, Galveston, &c., will continually keep up an active correspondence with the secretary, and the most important information, interesting letters from settlers, anecdotes of colonial life, and other similar topics, will thus form a fount of material for this bi-weekly chronicle. Surrounded as every interest in this country is by distress, to ameliorate which emigration, we take it, is the only true panacea, it appears to us that this company is calculated to effect a great national good; and, from its numerous sources of profitable return, will, most probably, amply repay the capital invested. Mr. George Catlin, the celebrated Indian traveller, who now holds the office of local superintendent under the United Company, will proceed with the first body of settlers, to form the proposed settlement in Milam County, Northern Texas, early in August.

MINING IN SPAIN.—No. III.

The establishment of San Jose is the largest in the country. Its proprietors, Messrs. Moncaro and Co., direct the operations, and are men of fortune and talents. They passed through the disastrous epoch already referred to, with remarkable firmness. Losses and bad debts, only served to make them more decided in their persevering efforts; and they are now reaping the fruits of their spirited conduct, prospering themselves, and contributing essentially to the mining and smelting interests of the district. Their works comprehend 10 furnaces, and two cupels, which produce monthly some 30 to 35 tons of pure lead, and 11,000 ozs. of silver.

The establishment of La Concepcion, consists of four furnaces, three of which are in active operation, and of two cupels. The monthly produce in lead, is about 20 tons, and in silver, 8000 ozs. The smelting-works of La Carmelita, are also amongst the most flourishing in the country. They belong to the owners of the rich and celebrated mine of El Carmen, who smelt their own ores, which are the richest in the whole of this mineral range. These works are directed by Don Antonio Garcia Moreno, a good metallurgist and ingenious man, who has given to them, a most efficient organisation, and great importance. They consist of six furnaces, and two cupels, the former producing monthly 35 tons of lead, and the latter from 12,000 ozs. to 13,000 ozs. of silver.

Amongst the remaining smelting establishments, sustained by these mines, at different distances from Aguilas, and Almagrera, may be enumerated—1. La Union, situated at Aguilas, which is prospering under the enlightened direction of its proprietor, Don Benito Perier, and consists of five furnaces, and two cupels, producing monthly from 20 to 25 tons of lead, and some 7000 ozs. of silver.—2. La Garrucha, which after having suspended operations, for some years, has now resumed them, with four furnaces, and one English cupel, in activity.—3. Los Palomares, noted for the correct principles of its construction, on plans furnished by Don Silvestre Vejarano, of the mining school of Almaden.—4. The Tomiflar, and La Boca Mairena. The former is the property of one of those men, whom fate would seem to keep at a distance from fortune, but who knows how to conquer it, by labour and intelligence. He himself directs the works, which consist of three furnaces, and two English cupels, and are giving excellent results. La Boca Mairena, long since abandoned, has now been revived, and put into active operation, by the skilful arrangements of Don Luis Vouland, a French metallurgist.

The Spanish smelters, have adopted in the form of their furnaces, a modification of the French furnace (*à manche*), and for their refining process, a simplified and improved model of the German cupels. The former, smelt in the 24 hours, from 5 to 6 tons of ore, according to its greater or less fusible properties; and the latter refine from 5½ to 6½ tons of argentiferous lead in 32 or 34 hours. In both the one and the other, the blast is produced by mule power, the establishments of La Garrucha and Carmen being the only two that have steam-engines.

The Spanish workman is essentially intelligent, and ready, adroit, and patient. In exchange for good treatment and kindness, he gives more than his labour: he gives devotion to his employer. The ordinary price of a day's work is 1s. In the smelting establishments, the superintendent of a furnace, receives daily, 1s. 10½d; the charger of the furnace, 1s. 5½d., and their assistants, from 1s. to 1s. 3d. In the mines, an ordinary miner receives, from 1s. 3d. to 1s. 5½d. per diem, nothing more. But they are content to take tutwork, on very moderate terms, contracting even for the entire exploration of the mine. In this case, the contractor takes on himself the whole work and cost underground; subject, however, to the control of the mining engineer. The general stipulation is, two-thirds of the net produce for the contractor, and one-third for the owners.

The ores are conveyed on asses to the several smelting-works, and the price of carriage varies, from 2½d. to 5d. per hundred-weight, according to the distance. Whatever may be the quantity of ore, the facility of carriage, keeps pace with the demand, and is as expeditious as is required. The price of coal, in the port of Aguilas, is 1*l.* 8s. 4d. per ton of 22 quintals, and that of coke, 1*l.* 17s. 6d. The average cost of smelting and refining a ton of ore of 22 quintals, is 1*l.* 8s. 4d., and 5 per cent. of the produce in lead and silver, is paid to Government.

This interesting coast, as yet, comparatively, deserted, must soon attract the attention of capitalists and miners. Situated on the borders of the most commercial sea in the world, the emporium of all markets, it offers at once, inexhaustible mineral wealth, and lands suited to all sorts of agriculture; a robust peasantry, a climate of invariable mildness, and the most perfect security of person and property. In this particular, the law is promptly and vigorously administered in Spain, insomuch, that it would be difficult to cite a case of outrage on either person or property, remaining unpunished. As regards the condition of its social relations, and engagements, these may be collected from the fact, that foreigners prosper under them, and generally conclude by settling in the country. Indeed, much misconception on these points, prevail amongst those who, without having lately visited Spain, take their impressions of her present industrial and social condition, from hearsay, or the traditions of the past. No nation in Europe, has, during the last six or seven years, made such political and social progress, as this misunderstood country; where, under one and the same standard, liberty and order advance together, and where the energy of Government, seconded by the good sense of the people, is daily developing fresh sources of public prosperity, and power. Aguilas is destined to partake, in a special degree, of this regeneration, since new mining operations cannot fail to give increased animation to its triple chain of mineral hills, and extend, in a like ratio, its smelting establishments; whilst its surrounding plains, now a sterile waste, will, under a system of irrigation, of easy achievement, yield rich harvests; as remarkable for variety, as abundance: thus, too, its bay, will necessarily attract more shipping, both national and foreign, furnishing returns, not only in lead and silver as at present, but in agricultural produce; and in short, an active and happy population will cover this privileged border of the Mediterranean; where, in the very centre of Europe, are presented all those elements of fortune and well-being, which, judging from precedents, would seem to exist, but on the other side of the Atlantic. P. B. V.

MINING IN SPAIN.—Mining enterprise is, every day, receiving fresh impulse. In Catalonia, the auriferous sands are being explored with activity. The silver mines in Hiendelaencina, and other parts of the province of Guadalajara, so far from declining in importance, have considerably improved within the last few days. In the province of Arragon, works are about to be opened, on a lode of greater promise than any that has been yet discovered. The mining reputation of Spain has extended itself, in an extraordinary degree lately; insomuch, that several foreign Governments have commissioned their mining engineers to visit our establishments. The Director-General of Prussian Mines has been engaged during the last month, in inspecting those enumerated above, and several others.—*Madrid Observador, May* 27.

A LIVER COMPLAINT OF A MOST HOPELESS NATURE CURED BY HOLLOWAY'S PILLS.—Mr. Thomas Clark, of Lake George, New South Wales, was seriously afflicted for years with a liver complaint. His medical attendants, after trying all their skill, candidly gave their opinion that his case was hopeless. In this situation, and when expecting that every day would terminate his earthly career, a friend recommended him to try Holloway's Pills, assuring him that he knew a person who was cured by them of that complaint. He adopted the advice, and found speedy relief from taking them, and was in a short time perfectly restored to health.—Sold by all vendors of medicines, and at Professor Holloway's establishment, 244, Strand, London.

ASTURIAN MINING COMPANY.—Notice is hereby given, that a SPECIAL GENERAL MEETING of the shareholders in this Company will be HELD at the offices of the company, 9, Austinfriars, in the city of London, on Monday, the 24th day of June inst., at One o'clock precisely, for the purpose of taking into consideration the terms of a Negociation now pending for the reconstitution of this Company, and to assent to, or dissent from, the confirmation of a Contract already entered into provisionally for that purpose.

A copy of the Contract so provisionally executed may be seen at the said offices of the Company, on Thursday, Friday, and Saturday, previously to the said day of meeting. The meeting can be attended only by shareholders who have paid £15 on their respective shares. CHARLES CUNINGHAM, Chairman.

Offices of the Company, KENNETH MACKENZIE, Secretary.
No. 9, Austinfriars, London, June 14, 1850.

BANK OF AUSTRALASIA (Incorporated by Royal Charter, 1835), No. 8, AUSTINFRIARS.—The Court of Directors GRANT BILLS and LETTERS of CREDIT on the under-mentioned branches—viz.: Sydney, Maitland, Melbourne, Geelong, Hobart Town, Launceston, and Adelaide, on terms which may be learnt on application, either at their offices, 8, Austinfriars, or at their bankers', Messrs. Smith, Payne, and Smiths. By order of the Board, WM. MILLIKEN, Secretary.

EUROPEAN GAS COMPANY, London, June 8, 1850.—Notice is hereby given, that the ANNUAL GENERAL MEETING of the proprietors will be HELD on Thursday, 27th day of June next, at the hour of Two o'clock precisely, at the office of the Company, 39, Finsbury-circus, London, pursuant to the provisions of the Deed of Settlement. Two directors retire by rotation, but, being eligible, will be proposed for re-election. By order of the Board,
J. B. GREAVES, Secretary.

SOUTH WALES RAILWAY.—Notice is hereby given, that this RAILWAY will be OPENED for PASSENGER TRAFFIC on the 19th of JUNE, 1850. TRAINS will START as under:—

	A.M.	A.M.	P.M.	P.M.		A.M.	P.M.
SWANSEA—Week Days.....	7.0	10.30	2.0	6.0	—Sundays.....	7.0	6.0
CHEPSTOW „	8.0	12.0	4.30	7.0	„	7.0	6.0

Calling at intermediate stations as per train bills, which will be procurable at the stations on the railway, on and after the 18th June.
By order of the Directors, FREDERICK G. SAUNDERS, Sec.

ST. KATHARINE DOCKS, June 11, 1850.—Notice is hereby given, that a HALF-YEARLY GENERAL MEETING of the proprietors of the ST. KATHARINE DOCKS will be HELD in the Dock House, Tower-hill, in the county of Middlesex, on Tuesday, the 16th day of July next, at Twelve o'clock at noon, for the purpose of declaring a dividend on the capital stock of the company, for the half-year ending the 30th June inst.; also for the election, by ballot, of 21 directors, for the year ensuing; and that the books of the Company will be closed on Saturday, the 22d inst., and opened again on Friday, the 26th of July next.
By order of the Court, JOHN HALL, Secretary.
N.B.—The chair will be taken at One o'clock precisely.

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG.
THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY
BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of the month.
BOMBAY.—Passengers for Bombay can proceed by this company's steamers of the 29th of the month, to Malta, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.
MEDITERRANEAN.—MALTA—On the 20th and 29th of every month. CONSTANTINOPLE—On the 29th of the month. ALEXANDRIA—On the 20th of the month.
SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th 17th, and 27th of the month.
For plans of the vessels, rates of passage-money, and to secure passages and ship cargo, apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

LONDON AND LIVERPOOL COMMISSION AND GENERAL AGENCY OFFICES.—Every description of COMMERCIAL BUSINESS CONDUCTED by Messrs. BRADFIELD & CO., No. 19, STRAND, LONDON, and Mr. BIRD, ST. GEORGE'S-BUILDINGS, BASNETT-STREET, LIVERPOOL.
Patentees, Inventors, and others desirous of giving publicity to New Works, will have their views vigorously worked out by parties acquainted with every detail and channel, metropolitan and provincial.—Agencies arranged, and correspondence, inquiries, collection of debts and rents, undertaken with energy and economy.

Proceedings of Public Companies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY.....East Birch Tor Mining Company—offices, at Two.
Bank of Australasia—offices, at One.
WEDNESDAY..Guadalcanal Mining Company—offices, at Two.
Royal Exchange Assurance Company—offices, at Twelve.
National Reversionary Investment Company—offices, at Two.
Great Central Gas Consumers' Company—London Tavern, at One.
General Cemetery Company—offices, at Two.
FRIDAY .....Wheal May Mining Compan—Rose and Crown, Old Broad-street, Three.

[The meetings of Mining Companies are inserted among the Mining Intelligence.]

LONDON INDISPUTABLE LIFE POLICY COMPANY.

The annual meeting of proprietors of this company was held at the London Tavern, Bishopsgate-street, on Friday, the 14th inst.

JAMES FULLER MADOX, Esq., in the chair.

ALEX. ROBERTSON, Esq. (the manager and actuary), read the following report:

At the last annual meeting the board was enabled to present a report showing an extent of business almost unexampled in the whole history of mutual life assurance; and, from the statement which your directors have now the gratification of submitting, it will be seen that the amount of business of the last has greatly exceeded that of the previous year. Since the annual meeting in June, 1849, there have been received 452 proposals for the assurance of 185,254*l.* 19*s.* Of these proposals 404 have been accepted and completed, assuring 120,502*l.* 15*s.*, and yielding in annual premiums the sum of 4529*l.* 16*s.* 4*d.*—making the total sum now under assurance by the company 193,573*l.* 16*s.*, and the annual revenue 7439*l.* 12*s.* 2*d.*

The directors are also enabled to contratulate the members on the small number of deaths which have occurred, there having been only three since the establishment of the company, the claims upon which amount altogether to 1700*l.*, being considerably less than one-half of the calculated expectancy. One of the deaths occurred in Canada from cholera, another was the case of a lady who died in premature child-birth within six weeks after the assurance was effected, and the third was occasioned by inflamation—results which show that due care has been taken in the examination and selection of lives.

The balance-sheet to the 31st of December last, and a statement of the assets and liabilities of the company, prepared, certified, and audited in terms of the statute under which the company is incorporated, is presented to the meeting—from which it appears that after providing for the payment of the sums assured and outstanding debts, including the whole preliminary expenses attending the formation of the company, there was at that period a balance of profit of 14,178*l.* 10*s.*, exclusively the property of, and divisible amongst the members of the company, as directed by the Deed of Constitution.

In their last year's report, your directors ventured to augur an increase of business from an extended knowledge of the advantage of policies being indisputable, and the highly satisfactory position which the company had then attained. Their expectations have been fully realised. A considerable number of last year's assurances have been effected, solely for the purpose of being used as transferable securities, for which indisputable policies are alone completely available. And now that the large and increasing revenue of the company has advanced far beyond that point, which even the most scrupulous and least informed on the subject of life assurance may be expected to know, is a sufficient guarantee of present safety and future prosperity, your directors anticipate a still further accession of business, realising an increase of benefit to present and future members, and spreading more widely the great and numerous advantages of life assurance.

The CHAIRMAN, having made some suitable observations on the principles of the society, concluded by moving the adoption of the report.

The meeting was then addressed by Mr. Moore, Mr. Bird, Mr. Robson, Mr. Bramwell, Mr. Dangerfield, and others, when the report was adopted.

A vote of thanks was proposed to the directors, medical officers, and secretary of the Paddington branch of the institution, and agreed to unanimously.

A vote of thanks having been passed to the directors, Mr. MATHEWS returned thanks. He read a letter from a gentleman in Buckinghamshire, and from another gentleman in Suffolk, both of whom accepted the agency of the company with the greatest pleasure, on the principle of its policies being, by their deed, indisputable; the former writer complaining that the want of that principle being acknowledged had caused him much annoyance in litigation, and was, in his opinion, of no valid security to the public. He (Mr. Mathews) was happy to see so much unanimity prevail at this meeting; and, notwithstanding that, he should be happy to see it come to his turn to retire, to find any other gentleman come forward to occupy his place with as much zeal and resolution to advocate the interests and principles of the company as had been shown by himself and the other directors. (Applause).

A vote of thanks was then proposed, and carried unanimously, to the medical officer, manager, and secretary of the London Indisputable Life Policy Company.

Mr. ROBERTSON (the manager) returned thanks. He regretted the absence of Mr. Phillips, although he knew, from his innate feeling, that this gentleman would not be one to speak of himself; but he was sure of this, that every proprietor must form of that gentleman the most favourable opinion. The fact was, this company was highly favoured in obtaining such a medical adviser as Mr. Phillips—a gentleman of great professional experience, classical learning, and mathematical attainments, was certainly an acquisition to this company. Let them but add to this the courtesy and affability of a complete gentleman, and he had no doubt their wish would be unanimous that such a medical adviser might long continue in connection with this establishment. He (Mr. Robertson) would not be vain enough to say that he possessed all the value that had been attributed to him by his friends on this occasion; but he would merely say, that it was the point to which he (Mr. Robertson) had always aspired; still he thought that, within the last two years, he had been in some degree instrumental in raising this institution to the high position which it now occupied. He wished it to be understood that a company of this kind was not a mere speculation, in which parties might take their chance whether it flourished or decayed; on the contrary, it was one which he hoped would exist for ages, and that, in distant times, their successors would come in to reap its advantages. Mr. Robertson having given a very lucid description of the principles of this society, and of the advantages of life assurance generally, concluded by again thanking the meeting for the vote of thanks passed to the medical officer, himself, and secretary.

After a cordial vote of thanks to their worthy chairman, the meeting separated.

CHURCH OF ENGLAND LIFE AND FIRE INSTITUTION.

The annual general meeting of proprietors of this institution was held at the establishment, Lothbury, yesterday, the 14th inst.

Major OLIPHANT (East India director) in the chair.

The MANAGER read the report, from which it appeared that, notwithstanding the great competition which now exists amongst all life offices, and from the formation of new institutions, the number of new policies insured by this society in the past year exceeded those issued in any previous year since the formation of the institution. It appeared that the claims paid in the year 1849, remarkable for its unusual mortality, as witnessed by the reports of the Registrar-General, only exceeded by a small amount the receipts on the lapsed policies. In the fire department the same favourable comparison as to income and losses could be maintained, the losses not having exceeded one-third of the receipts. This society was still in the full enjoyment of the good opinion of the clergy of the Established Church, as reported on past occasions. The report concluded, by requesting the proprietors not to rely on the past success and high position the institution had obtained, through the zeal and perseverance of the directors, so as to relax in any individual efforts of their own, for that course now became requisite for the welfare of the very best of institutions, looking at the competition which now prevailed for the public approbation.—The report gave the highest satisfaction to the proprietors, and was adopted unanimously, when a cordial vote of thanks was passed to the gallant chairman and directors, for their able services, and to W. Emmens, Esq. (the manager), for his unremitting and zealous endeavours to promote the welfare of the institution.—The meeting then separated.

THE PATENT LAW REFORM.—We find that the petition for the amendment of the Patent Laws, got up by Mr. F. W. Campin, the patent agent, and signed by many inventors (given in the *Mining Journal* for May 4, 1850), has been presented to the House of Commons by Mr. Cornewall Lewis; and we trust that the Government and the Legislature will be induced to do something to better the condition of the inventor and the public in regard to letters patent for inventions; for, however parties may differ as regards the expediency of any particular plan of reform, it is quite certain that the existing practice would not be so very inaptly characterised as "confusion worse confounded," the action of the present system being dilatory, expensive, uncertain, and litigious. As we know that many of our readers take great interest in this subject, we will briefly enumerate the principles upon which Mr. Campin's plan of amendment proceeds, which are—1. That provisional or preliminary protection should be afforded to inventors immediately upon the *application* for a patent, and at a small cost, leaving them to complete their patents at a larger cost within a limited time, should they think it expedient to do so.—2. That, for the security of the public, the patentee be bound to deposit a memorandum specification immediately upon application for a patent, and that proper facilities for opposition be reserved to the public. Mr. Campin also prays that the legal protection of patent rights may be improved by the appointment (instead of an ordinary jury) of practical men, or *experts*, as a commission to decide upon the novelty and utility of patented inventions, whenever those points are brought in question in any patent case, and that the patentee may have the option of proceeding for a penalty before two magistrates, the same as a proprietor of a registered design. As the plan of giving provisional or preliminary protection might be carried out in various ways, we understand that, although Mr. Campin has suggested a course very easy of adoption, and which he considers the best, he has, nevertheless, submitted to the Board of Trade that the point might be carried out by a provision in the proposed Designs' Amendment Act, allowing parties to patent after registration.

EAST OF SCOTLAND MALLEABLE IRON COMPANY.—The Directors have been authorised to RECEIVE OFFERS for the PURCHASE, or LEASE, of the MALLEABLE IRON WORKS at DUNFERMLINE—comprising a STEAM-ENGINE, of 80-horse power, working the machinery, consisting of FORGE and 2 PUDDLE BAR TRAINS, of 16 inches diameter, HAMMER and PATENT SHINGLING MACHINE; also a 16-inch MERCHANT BAR or RAIL MILL, a 12-inch MILL, for ordinary sized merchant bars, and an 8-inch GUIDE MILL, 13 PUDDLING FURNACES, and 6 MILL FURNACES—the whole capable of producing 120 tons of bar-iron weekly.

A REFINERY STEAM-ENGINE, of 45-horse power, with blowing apparatus, complete, and two fires erected.

A complete SET of WORKSHOPS, containing a 20-horse power STEAM-ENGINE, driving a powerful roll-turning lathe, and blowing apparatus for smiths' fires.

A PUMPING and CLAY MILL STEAM-ENGINE, of 16-horse power, used for the manufacture of fire-brick, and pumping water for supply of engines.

Also, in course of erection, a STEAM-ENGINE, of 80-horse power, intended to drive the mills apart from the forges, having strong cast-iron framing laid down, and machinery suitable on the premises, which could be brought into active operation in a short period.

Together with the necessary TOOLS, LOOSE MACHINERY and STOCKS, of different kinds.

Offers will also be received for the PURCHASE of the ESTATE of TRANSY, consisting of about 107 imperial acres, with elegant MANSION-HOUSE and PLEASURE GROUNDS, situated about half a mile to the east of the town of Dunfermline.

Applications may be made to Mr. James Inglis, Chairman of the Company; or to Johnstone, Russell, and Craig, writers, Dunfermline.—Dunfermline, March 15, 1850.

LONDON AND NEWPORT IRON-WORKS, NEWPORT, MONMOUTHSHIRE.—The PROPRIETOR of the ABOVE WORKS, finding the great and increasing demand for his PATENT FOUNDRY FURNACE to claim entire attention, he is induced to offer his very valuable and convenient FOUNDRY PREMISES FOR SALE, together with the STOCK and PLANT, complete, and ready for immediate occupation; the growing prosperity of Newport, and its increasing facilities by railway, render this an opportunity seldom occurring; the purchasers will also be entitled to the manufacturing privilege of South Wales for the "Patent Furnaces:" from 50 to 100 tons may be done on the premises with ease; there are three powerful cranes, and a "Patent Foundry Furnace" erected, which has been in successful operation for the last 6 months.
For further particulars address JOSEPH DEELEY,
London and Newport Iron-Works, Newport, Mon.

ROBERT MUSHET'S IMPROVED CAST-STEEL.—Engineers and Manufacturers in general are respectfully invited, to MAKE A TRIAL of this IMPROVED STEEL, which will bear more heat in the working, and which is calculated to endure more hardship, than any Cast-Steel hitherto offered in the market. For TURNING and PLANING TOOLS this improved Cast-Steel will stand better, and keep its edge longer at double or even triple speed, than the best Sheffield Steel at ordinary speed.

Samples, or any larger quantities, drawn to sizes, may be had on application, by letter, to "The West Dean Steel Company," Coleford, Gloucestershire.

TOUGHENED CAST-IRON—STIRLING'S PATENT
No. 1—For SMALL and MEDIUM CASTINGS.
No. 3—For HEAVY CASTINGS.
No. 3 *(Extra)*—For ROLLS, HEAVY SHAFTS, and VERY HEAVY CASTINGS.
The above is by far the strongest Cast-Iron made, and is now being extensively used where strong castings are required.
Further particulars may be obtained on application to
Messrs. GARDEN & MACANDREW,
27, Queen-street, Cheapside, from whom also the IRON can be PROCURED.

Just published,
A MAP OF THE GREAT NORTHERN COAL-FIELD, in the Counties of NORTHUMBERLAND and DURHAM, from actual surveys, by I. T. W. BELL, Engineer and Surveyor, and engraved by M. & M. W. LAMBERT, Newcastle-upon-Tyne.—This Map, 46 inches by 36 inches in size, and drawn to a scale of 1 mile to an inch, is engraved in the best style, and includes the whole of the extensive and important Coal Mining Districts of the Tyne, Wear, and Tees, together with those of Hartlepool, Seaham, Hartley, Blyth, and Warkworth. It extends from Stockton-upon-Tees and Middlesbro'-on-Tees to the south, to the River Coquet and Warkworth Harbour on the north, and from the German Ocean on the East Inland to Woolsingham, in the county of Durham, and Bywell, in the county of Northumberland, comprising an area of about 1100 square miles.
This Map accurately shows the various Collieries and Colliery Railways, Public Railways, and Railway Stations, Boroughs, Market Towns, Villages, Mansions and Farm Houses, Iron-works, Harbours, Docks and Shipping Places, Turnpike and Cross-roads, Boundaries of Townships, Parishes, Boroughs, and Counties, and all Places of Interest—forming the most comprehensive and useful Topographical Survey of the Commercial and Coal Mining Districts of the North of England that has ever been offered to the public.
PRICE TO SUBSCRIBERS.

Plain, in sheets	£1	11	6	—to be paid on delivery.
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